1901.

NEW ZEALAND.

COAL-MINES OF NEW ZEALAND

(REPORT OF ROYAL COMMISSION APPOINTED TO INQUIRE AND REPORT ON THE WORKING OF).

Presented to both Houses of the General Assembly by Command of His Excellency.

COMMISSION.

To all to whom these presents shall come, and to William Reeve Haselden, Esq., Stipendiary Magistrate, of Wellington; Joseph Proud, Esq., a certificated mine-manager, of Wanganui; and John Lomas, Esq., of Christchurch, an Inspector under "The Factories Act, 1894": Greeting.

WHEREAS in a report adopted by the Goldfields and Mines Committee of the House of Representatives on the third day of October, one thousand nine hundred, upon the petition of Thomas Corby and others, it was recommended, firstly, that a Royal Commission be appointed for the purpose of making full inquiries into the inspection and management of the Westport-Cardiff Coal-mine; and, secondly, that in the event of such a Commission being appointed the scope of its inquiries should be extended to comprehend the inspection and management of the coal-mines of the colony generally: And whereas the aforesaid report was referred to the Government for consideration: And whereas it is expedient to give effect to the recommendation in the aforesaid report:

Now, therefore, know ye that I, Uchter John Mark, Earl of Ranfurly, Governor of the Colony of New Zealand, reposing trust and confidence in your knowledge, integrity, and ability, and by and with the advice and consent of the Executive Council of the said colony, do hereby constitute and appoint you, the said

WILLIAM REEVE HASELDEN,
JOSEPH PROUD, and
JOHN LOMAS,

to be Commissioners for the purpose of making inquiry into the several matters mentioned in these presents, that is to say,—

(1.) Generally as to the management and inspection of the Westport-Cardiff Coal-mine at Mokihinui up to the time of the outbreak of fire in the said mine, which took place on or about the twenty-eighth day of January, one thousand nine hundred.

(2.) Generally as to the steps taken by the occupiers of the said mine to suppress or extinguish the said fire immediately upon the discovery thereof.

(3.) Generally as to the steps taken by the Inspector of Mines at Westport to suppress or extinguish the fire both during the time the mine was in occupation of the Westport Cardiff Coal Company (Limited), now in liquidation, and since the possession of the mine was resumed by the Crown on the twenty-third day of May, one thousand nine hundred.

(4.) Generally your opinion as to whether the means adopted by the aforesaid company and Inspector of Mines respectively were intelligently undertaken and continued, and were sufficient under the circumstances, with the means at the disposal of the company and Inspector respectively, to prevent the fire spreading and ultimately to lead to the extinguishment thereof.

(5.) That, in addition to the matters hereinbefore referred to, you report your opinion as to the management, control, and inspection generally, in terms of "The Coal-mines Act, 1891," and regulations thereunder, of the said coal-mine, and also of the under-mentioned principal coal-mines in the colony:—

AUCKLAND DISTRICT.

Hikurangi Coal Company.
Ngunguru.
Taupiri Extended.
Taupiri Reserve.
Ralph's Taupiri.

WEST COAST DISTRICT.

Mokihinui.
Millerton.
Coalbrookdale.
Ironbridge.
Blackball.
Brunner Dip.
Brunner Rise.

OTAGO DISTRICT.

Shag Point.
Allandale.
Freeman's, Abbotsford.
Kaitangata, including Castle Hill.

SOUTHLAND DISTRICT.

Nightcaps.

(6.) And, lastly, you are hereby enjoined to make such suggestions and recommendations as you may consider desirable or necessary to provide for the future more efficient working, control, management, and inspection of the coal-mines of the colony, or any of them.

And with the like advice and consent I do further appoint you, the said William Reeve Haselden, to be Chairman of the said Commission.

And for the better enabling you to carry these presents into effect you are hereby authorised and empowered to make and conduct any inquiry under these presents at such place or places in the said colony as you deem expedient, and to call before you and examine on oath or otherwise as may be allowed by law such person or persons as you think capable of affording you information in the premises; and you are also hereby empowered to call for and examine all such books, documents, papers, maps, plans, or records as you deem likely to afford you the fullest information on the subject of this Commission, and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And it is hereby declared that this Commission is issued under and subject to the provisions of "The Commissioners' Powers Act, 1867," and its amendments. And, lastly, that, using all diligence, you do report to me under your hands and seals your opinion resulting from the said inquiries in respect to the several matters and things inquired into by you under or by virtue of these presents not later than the thirty-first day of March next.* And it is hereby declared that this Commission shall continue in full force and virtue although the inquiry thereunder be not regularly continued from time to time by adjournment, and that you and any two of you shall and may from time to time proceed with the execution thereof, and of every matter, power, or thing herein contained.

In witness whereof I have hereunto set my hand, and caused these presents to be issued
(L.S.) under the seal of the said colony, at Wellington, this twenty-second day of November, in the year of our Lord one thousand nine hundred.

RANFURLY, Governor.

Issued in Executive Council.
A. W. WILLIS,
Clerk of the Executive Council.

Extending Commission to inquire into and report on the Inspection and Management of Coal-mines.

To all to whom these presents shall come, and to William Reeve Haselden, Esq., Stipendiary Magistrate, of Wellington; Joseph Proud, Esq., a certificated mine-manager, of Wanganui; and John Lomas, Esq., of Christchurch, an Inspector under "The Factories Act, 1894:" Greeting:

WHEREAS by a Commission bearing date the twenty-second day of November last, you, the said

WILLIAM REEVE HASELDEN,
JOSEPH PROUD, and
JOHN LOMAS

were appointed to be a Commission for the purposes and with the powers in the said Commission more particularly mentioned: And whereas by an extension of the said Commission you were directed and required to report to me on or before the first day of May* then next ensuing your proceedings and your opinion touching the matters mentioned therein: And whereas it is expedient that the said Commission should be extended as hereinafter provided:

Now, therefore, I, Uchter John Mark, Earl of Ranfurly, the Governor of the Colony of New Zealand, by and with the advice of the Executive Council thereof, and in exercise of every power and authority enabling me in that behalf, do hereby extend the said Commission to include the following coal-mines in the Malvern District, Canterbury:—

Springfield.
Homebush.
Hartley.
Rutherford's.
Sheffield.
St. Helens.
Mount Somers.

And with the like advice and consent, and in further pursuance and exercise of the said power and authority, I do hereby confirm the said Commission, except as altered by these presents.

In witness whereof, I, Uchter John Mark, Earl of Ranfurly, Governor of the Colony of New Zealand, acting by and with the advice of the Executive Council of the said
(L.S.) colony, have hereunto set my hand, and have caused these presents to be issued under the seal of the said colony, at Wellington, in the said colony, this third day of April, in the year of our Lord one thousand nine hundred and one.

Issued in Executive Council.
J. F. ANDREWS,
Acting-Clerk of the Executive Council.

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* Subsequently extended to 31st May, 1901.

REPORT.

To His Excellency the Earl of Ranfurly, Governor of the Colony of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,—

The Commission entrusted to us by your Excellency directed our attention to the following matters:—

(1.) As to the management and inspection of the Westport-Cardiff Coal-mine at Mokihinui up to the time of the outbreak of fire in the said mine on the 28th January, 1900.

(2.) Generally as to the steps taken by the occupiers of the said mine to suppress or extinguish the said fire immediately upon the discovery thereof.

(3.) Generally as to the steps taken by the Inspector of Mines at Westport to suppress or extinguish the fire, both during the time the mine was in occupation by the Westport-Cardiff Coal Company (Limited), now in liquidation, and since the possession of the mine was resumed by the Crown on the 23rd May, 1900.

(4.) Generally as to whether the means adopted by the aforesaid company and Inspector respectively were intelligently undertaken and continued, and were sufficient under the circumstances with the means at the disposal of the company and Inspector respectively to prevent the fire spreading, and ultimately to lead to the extinguishment thereof.

(5.) As to the management, control, and inspection generally, in terms of "The Coal-mines Act, 1891," and regulations thereunder, of the said coal-mine, and also of the following principal coal-mines of the colony:—

Auckland District: Hikurangi Coal Company, Ngunguru, Taupiri Extended, Taupiri Reserve, Ralph's Taupiri.

West Coast District: Mokihinui, Millerton, Coalbrookdale, Ironbridge, Blackball, Brunner Dip, Brunner Rise.

Otago District: Shag Point, Allandale, Freeman's, Abbotsford, Kaitangata, Castle Hill.

Southland: Nightcaps.

(6.) And to make such suggestions and recommendations as we may consider desirable or necessary to provide for the future more efficient working, control, management, and inspection of the coal-mines of the colony, or any of them.

Having now concluded our investigations and inquiries, we have the honour to submit to your Excellency our report on the several matters referred to us. The time for presenting our report has been extended by your Excellency to the 31st May, 1901.

Your Excellency's Commission, dated the 22nd November, was received by us on the 6th December, 1900, and on the 10th December we left Wellington and proceeded to Whangarei, thence to the Waikato Mines, and from there to the west coast of the South Island, Southland, and Otago, personally examining each mine and taking evidence. We subsequently visited the mines at Mokau, in the Taranaki Provincial District, and also the mines at Collingwood and Pakawau, Golden Bay, in the Nelson Provincial District.

The evidence of witnesses was taken partly in public and partly in private—the latter course being adopted when, for reasons that will afterwards appear, it was considered best to do so.

Due notice of the sittings of the Commission was given by advertisement, and representative men were communicated with. The sittings of the Commission were watched by the public in each locality with much interest, and in nearly every place representatives of the Miners' Union attended, gave evidence themselves, and called witnesses. At Mokihinui and Denniston barristers were engaged on behalf of the Miners' Union and the Inspector of Mines respectively, but generally the case for the workers was presented by their local secretary or president. We gratefully acknowledge the courtesy we received from all parties appearing before us, and the ability and good temper with which employers, employés, and officials conducted their cases.

We believe that the investigation has been productive of immediate good in enabling owners and men to better understand the matters about which they differed, and that a good feeling has been promoted thereby.

Treating the subjects referred to us in the order named, we have the honour to report as follows:—

(1.) *Management and Inspection of the Westport-Cardiff Company up to the Time of the Outbreak of Fire in the Mine on the 28th January, 1900.*

The Westport-Cardiff Coal Company (Limited) was incorporated in August, 1892, with a nominal capital of £30,000, and acquired from the then occupiers the property situated at Mokihinui, known as the Westport-Cardiff Mine. It consisted of 1,800 acres, and was held by an application for a lease under the then existing statutes and regulations. It appears that out of the nominal capital of £30,000 hardly £17,000 was subscribed in cash, the balance being represented by paid-up shares and shares unallotted. The company obtained from the Crown a lease, dated the 31st March, 1893, for a term of sixty-six years, at a rental of £450 a year, merging into a royalty of 6d. a ton on the coal won when the royalty should exceed the rent. The company expended from £8,000 to £10,000 in preliminary works and machinery, and were in a position to put out coal in June, 1894. A difficulty arose with the Mokihinui Coal Company, who owned a private railway-line, over which the Westport-Cardiff Company took their coals, which resulted in the latter stopping the

output for some months; and it was not till November, 1894, that the difficulty was met by the Government taking over the railway, and making equitable terms with the Westport-Cardiff Company for haulage. The company has paid no dividend, and up to the end of 1898 had expended about £30,000 in works and plant. The total output of coal to September, 1899, when the company closed the mine, was 227,930 tons, divided into 44,728 tons of screened coal, 127,316 tons unscreened, and 62,884 tons nuts. The cost of the coal to the company was 5s. 9d. a ton at the bins, and, according to Mr. Hargreaves, the late chairman of the company, the cost f.o.b. Westport was 11s. a ton, made up as under: Cost of coal at bins tip-head, 5s. 9d.; royalty, 6d.; commissions, agencies, and management, 7½d.; Miners' Accident Fund, ½d.; railway-haulage, 3s. 2d.; depreciation, plant, &c., 8d.; stores, &c., 3d. Total, 11s. The nuts were sold, f.o.b. Westport, at 7s. 3d. a ton to the Union Steam-ship Company, and to smaller consumers at 11s. 6d. per ton. There was a contract to supply the Railway Department, Lyttelton, at 16s., which would involve a loss of 1s. 3d. a ton to the company, if the above estimate is correct, as the freight and expenses from Westport to Lyttelton are given at 6s. 3d. a ton.

It is necessary to go somewhat fully into these matters, and the circumstances which led up to the mine being closed in September, 1899, in order to appreciate the position of the company and the mine when the outbreak of fire was discovered on the 28th January, 1900. We therefore quote somewhat largely from Mr. Hargreaves' evidence. That gentleman says—and we accept his statement as being correct: "The company employed 120 persons when in full work. We closed the mine in September, 1899. The reasons for closing the mine were the failure of the mine to produce marketable coal, and the want of necessary funds to open up the 'cave area' district. Our manager, Mr. Broome, reported that the marketable coal in the area opened up by our workings was practically exhausted. The Hector block disappointed us; the coal turned out to be soft, variable, and stoney. We worked the pillars as far as we could. We went to the dip, which entailed pumping-gear and new haulage, and after opening up three places in the dip the indications were that it was cut off by faults. We then opened up the Bridge section, at a cost of about £3,000. In six weeks from the time of opening, we had thirteen or fourteen faces open; out of these, nine proved to be soft coal—there is no hard coal there, but there is some fairly good steam-coal. In August Mr. Broome reported most unfavourably, and said he could see nothing but closing down."

Mr. Hargreaves enters at great length into the negotiations carried on with the Government with the object of continuing operations, but we do not consider the matters alleged by Mr. Hargreaves under this head to be pertinent to the questions we have to consider. No practical results came from such negotiations; but the position was that in August, 1899, the company had practically expended all its capital, and was saddled with a property in the shape of a coal-mine which the directors believed was absolutely worthless, and for which they had to pay £450 a year rent, and the heavy charges involved in protecting the property, and fulfilling the covenants in the lease—in short, their position as a company was hopeless. This was not a sudden failure of a company hitherto prosperous; the decline had been going on for several years, but as hope of improvement faded so probably did efficiency in working lessen, and the temptation to obtain saleable coal at the cost of sacrificing quantities of coal, which under better conditions would have been won from the ground and sold, increased. The plan of the workings shows that a very large area of ground had been gone through in proportion to the quantity of coal won.

With these preliminary observations as to the general position of the company and mine, we proceed to deal with the specific matter of the management and inspection prior to the closing-down in September, 1899. It is to be noted that the petition of Messrs. Corby and others to Parliament, which formed the initial step to the proceedings leading to the appointment of the present Commission, does not allege anything against such management or inspection; but we have taken a considerable mass of evidence as to the management and inspection of the mine, and we are of opinion that throughout the company's operations, and especially in the earlier stages, there was not thorough and effectual ventilation, and that the requirements of the statute and regulations were not enforced with sufficient strictness, and that the miners had some ground for hesitating to complain, for fear of dismissal should they do so. Prior to 1897, when the fan was erected, the ventilation was worse than subsequently; but, making all allowance for special occasions when for a little while there might be excuses for a shortage of air, we are compelled by the weight of evidence to report that the ventilation generally was not equal to the requirements of the law, or the health of the men employed underground. No complaint appears to have been made to the Inspector as to the deficient ventilation, but in January, 1899, certain miners wrote direct to the Hon. the Minister of Mines, complaining of the ventilation in the mine; and this letter was in due course referred to the Inspector, Mr. R. Tennent, and he most unwisely—and, indeed, improperly—communicated its contents to the mine-manager, Mr. Broome, and Mr. Bayfeild, the local agent of the company at Westport. In company with these two gentlemen, Mr. Tennent went to the mine, and asked the men whose names were appended to the letter if the signatures were theirs, which they more or less candidly admitted. Mr. Tennent admits to being somewhat angry with the men, but we do not think he acted with the roughness alleged by Beirne. The manager dismissed Beirne, on the ground that he was not a safe man to have in a mine, and it appears that the Inspector interceded for him, and tried to get him reinstated. We may point out that, the letter having been sent to the Minister, and not to the Inspector, the divulging of its contents was not technically a breach of section 44 of the Coal-mines Act, but substantially it was a breach of the spirit of the Act. Mr. Tennent candidly admits this was an error on his part, and, as the matter has been departmentally referred to the Chairman of this Commission for a report, we do not think it of sufficient importance to frame any recommendation on it. The Department of Mines will no doubt deal with it.

In our investigations we laboured under the disadvantage of being unable to enter the mine (except the Bridge section), as it was sealed up, and the internal fire was still burning, and we had

to depend on the evidence of those miners who had remained in the district, or whose attendance could be procured at the other places we visited, and on a study of the plans of the underground workings. There was no evidence to show any other cause for complaint, beside the lack of ventilation. A charge was made that there were not two travelling-roads available at all times to the miners, as alleged to be required by section 40 of "The Coal-mines Act, 1891," but we are of opinion that the Miners' Union is mistaken in their interpretation of the section, which does not authorise the dangerous practice of allowing persons to enter or leave the mine by any one of two or more roads. If such were allowed, it would be impossible to check the number of men within the mine at any time or account for their safety. "The two separate and distinct shafts or outlets to the surface from the mine intercommunicating with each other, so that such shafts or outlets shall afford a separate means of ingress or egress, available to the persons employed in such mine," specifically mentioned in the Coal-mines Act, section 40, means to provide a way of egress in case of accident, and of ingress to carry assistance under like circumstances. The alleged grievance of the miners under this head is that if a man wishes to leave the mine before the usual hour he cannot do so, because men are not allowed to travel the haulage-road while the trucks are running; but in case of necessity the trucks are stopped, and it is absolutely necessary, in order to provide for the men's safety, that the deputy should know if all have left the mine, and this cannot be the case if men can leave the mine unseen by some other way than the haulage-road.

We carefully inspected the Bridge section of the mine, and are of opinion that it shows signs of having been opened in a workmanlike manner, and, if it can be taken as a sample of the rest of the mine, no fault can be found, except as to ventilation.

At the end of September, 1899, the company discharged all hands except Mr. G. H. Broome, the mine-manager; his brother Roland Broome, who had been a clerk in the manager's office; and a man named Peter Martin, the carpenter at the works, who was paid when his services were required.

Mr. Broome says that at that time all the marketable coal was practically exhausted. There was a large quantity of coal left, but it was soft and unmarketable. The company were then losing between £300 and £400 a week. Negiotiations went on between Mr. Hargreaves and the Government, but did not result in any arrangement being made. The company were in arrear for rent or royalty, and for their share of the deficiency in profit on working of the railway, in terms of "The Westport–Ngakawau Railway Extension Act, 1890," and the Amendment Act of 1894. The relief given by the Act of 1900 had not been extended to them. In January they had £900 to their credit in the bank, and it does not appear that there were any pressing claims against the company. It was decided by the management that Mr. Broome should make periodical inspections, but it was not arranged that any daily inspection should be made. Mr. G. H. Broome had obtained another appointment, and left Mokihinui and the Buller district on the 28th January, 1900. Mr. Hargreaves says that it was agreed that Mr. R. Broome and the late deputy, Alexander Mitchell, should inspect the mine periodically, but not daily. It is clear that Mitchell did not inspect, as the pay-sheets show that he was only paid for four hours' work in October, and was not otherwise employed by the company during the period from 1st October to 26th January. It is improbable that much attention was given to the mine from the end of September until the fire was discovered. The Messrs. Broome were probably only concerned in seeing that the surface-works and machinery were not interfered with. From the end of September to 28th January it may be safely said that there was no inspection or management in the mine, and that the mine was not even barred at the main entrances. Peter Martin says he examined the mine in company with the manager at least three times during the period from September to January, and that he was at the main entrance tunnel on the Thursday before the 28th January—viz., on the 25th January, 1900. Mr. Broome says that up to the 25th January, when he left the mine, there had been no sign of fire, with the exception of a little heating in the dip, where there was a clay roof, and that had been flooded before he left. He says he had never seen any heating in the North block, or in the part of the Hector block where the fire occurred; but it must be remembered that the mine had been unoccupied, unworked, and, as we think, practically unwatched for four months, and, though there was every opportunity for incendiarism, there were also all the conditions necessary to support the theory of spontaneous ignition.

In our opinion, no mine should be left unwatched in the way the Westport-Cardiff Mine was left, and should another case arise where the lessees from the Crown of a coal-mine fail to keep an efficient staff the Crown should at once intervene, and take the necessary measures to prevent accident from fire or accumulations of gas or damp.

(2.) *As to Steps taken by the Occupiers of the Mine to suppress or extinguish the Fire on its Discovery.*

On Sunday, the 28th January, the only person in charge of the mine was Mr. R. Broome, formerly clerk in the company's office, and on this day he was absent in Westport. At 1 p.m. on that day a boy named Keel observed smoke coming from the mine; he communicated the fact to some men, and they informed Alexander Mitchell, who seems to have had some sort of retainer to assist when wanted. Mitchell went to the main entrance of the mine at 2 p.m., and put brattice cloth across the openings of the mine. Word was sent to the company's agent at Westport, and to the Inspector of Mines, Mr. R. Tennent. The Inspector promptly proceeded to Mokihinui, arriving at the mine about 7.30 p.m. He went into the mine alone; he says he went along the main haulage-road until his light was extinguished by the gas, and he then decided that nothing could be done that night. He says that he saw smoke coming from the main tunnel at both entrances. This was an emergency in which an officer who was willing to take the responsibility of incurring some expense, and perhaps the censure of his departmental superior for interferenc before authorisation, might perhaps have saved the situation. From what is now known it appear

that there was at least a possible chance that a sufficient number of men, with necessary material, might have so dealt with the fire as to render it easy to subdue subsequently, and had there been human life to save, or perhaps even a valuable property, we believe that Mr. Tennent would have acted much more vigorously than he did. We have been careful to set out the conditions and prospects of the company and its mine, in order to fairly weigh the action of Mr. Tennent and those who subsequently endeavoured to deal with the fire. The local agent of the company, Mr. Bayfeild, communicated with the Westport Coal Company, and the latter placed at the disposal of the Westport-Cardiff Company the services of Mr. Dixon, mine-manager of the Granity Creek Mines. Mr. Dixon proceeded to the Westport-Cardiff Mine, arriving there at 9 a.m. on Monday, the 29th January. It is unfortunate that we cannot procure Mr. Dixon's evidence, but he has been a resident for some time at Newcastle, New South Wales, where he holds a position as Government Mine Inspector. We hestitate, in the absence of any evidence from him, to criticize the means he took to deal with the fire; we feel convinced that he acted with perfect good faith, and the suggestion that he was not anxious to save a rival company's property is an unworthy one. If there was any lack of enthusiasm on his part, it was rather because he believed the mine was no longer worth calling a rival, or risking much to save.

On Mr. Dixon's arrival on Monday, 29th January, he took charge, and it seems to us that Mr. Tennent was not authorised to interfere, unless he was very strongly of opinion that wrong measures were being adopted. Messrs. Dixon and Tennent conferred together, and they entered the mine for a distance of 16 chains, until the air-current reversing, and rendering it impossible for them to proceed further, they turned back and went to the bridge end of the tunnel, where they entered the tunnel, and got in about 10 chains, but on account of gases could proceed no further. They ordered the trucks to be taken out of the mine, and the tunnel to be bratticed off. They decided that a fan must be erected, which would take some days, and Mr. Tennent then left for Reefton, in order to attend an examination of candidates for mine-managers' certificates, and Mr. Dixon left with him, but returned on Wednesday. We are of opinion that they ought to have stayed at the mine, postponing the examination if other arrangements for holding it could not be made. The proportion of importance between the two claims of duty seems to be altogether in favour of their staying by the mine.

Before leaving the mine on the 29th January, 1900, Messrs. Dixon and Tennent made a report, in which they say: "We have this day endeavoured to locate position of the fire, but owing to the unavailable (*sic*) ventilation, which is natural, and the current thereby reversing every few minutes, we were unable to reach the affected part without incurring undue risk. We have therefore decided that no further risk to human life shall be incurred, and that a reliable current of air must be established to obviate this. To secure such current we decided the fan shall be removed from its present position, and temporarily set at opening to Chasm Creek from first section of the mine. Further, in the meantime all openings to-day are to be sealed up by close bratticing, and no workmen are to enter this section of the mine until authorised by the person in full control of operations.—R. TENNENT, Inspector of Mines; JONATHAN DIXON, Mining Manager. 29th January, 1900."

It will be seen from this report that these two gentlemen were of opinion that nothing could be done until a reliable current of air could be established, and men were at once set to work to erect a fan and establish such current. On the 30th January Alexander Mitchell, the foreman or deputy employed, reports: "We are vigorously pushing forward the removal of fan to the place indicated. All necessary hands are engaged working night and day. At 1 p.m. we were obliged to suspend work for four hours at the close entrance (Bridge) owing to smoke oozing through bratticing. Current changed then, and the bratticing was more tightly secured, and no change occurred in current till 4 a.m. on the 31st January."

Mr. Tennent's opinions may be taken from his report dated the 19th February, in which he says: "From personal knowledge of the workings I may state that, had the fire been detected in its earliest stage, great difficulty would have been experienced to locate and seal off the affected district in order to save the main roadway, *as the work would have required twelve permanent stoppings to be built*, and under most unfavourable conditions amongst the crushed pillars, when, had it been possible to accomplish, this fire would probably have broken out afresh at a future day. Viewing the position from every standpoint, it was imperative to watch and study every condition of safety on behalf of the workmen. . . . My opinion is, spontaneous combustion has been slowly and surely carrying out its destructive work under the mass of fallen rocks in the pillared ground, and making its way very gradually towards the fresh air on the outskirts of the falls when it was discovered."

If this opinion of Mr. Tennent's was well founded, the conclusion he arrived at was justified; but we are not dealing under this heading with Mr. Tennent's action so much as Mr. Dixon's, who represented the mine-owners, and whose operations are under consideration. The point under the present heading being the conduct of the occupiers of the mine upon the discovery of the fire, and the occupiers having intrusted their interests entirely to Mr. Dixon, what he did covers the question of what the occupiers did at the crisis. Mr. Dixon might fairly be presumed by the company to be the best person obtainable at the moment to advise them, and to overcome the danger if it could be overcome; but, whether Mr. Dixon's operations can be adversely criticized or approved, it seems to us clear that so far as the occupiers were concerned, they could do no better under the circumstances than they did in engaging Mr. Dixon to proceed to the mine and take charge, but Mr. Dixon should have remained on the spot, and not have left from Monday till Wednesday. It is practically conceded that the only time when there was any chance of the fire being sealed off and kept from the main haulage-road was at the moment of its discovery, and perhaps on the following day. There are so many openings on the surface on the Chasm Creek slope that the fire within was obtaining full air vent, when once communication had been made from the pit to the outcrops.

When Dixon returned to the mine on Wednesday evening, 31st January, nothing appears to have been done beyond getting a fan ready to take the air into the mine, so that exploration could be carried on; and it was not until the Friday, 2nd February, that a party was formed, headed by Dixon, and they succeeded in getting within a chain of the fire, which was then within 3½ chains of the main haulage-road.

The main point for consideration is whether the fire could have been sealed off at least a chain up the bord instead of across the main haulage-road. If the fire could have been sealed off some distance up the bord the road would possibly have been saved, but to have done so would have involved some danger, the extent of which it is impossible to gauge. Alexander Mitchell, who was with Dixon at the farthest point to which any one ventured, is of opinion that it was too hazardous to attempt to put a stopping further in, and said plainly that he would not do it. We may here observe that, in our opinion, Messrs. Dixon, Tennent, and Mitchell appear to have been cool, prudent, and courageous men, who were willing to take all necessary risks for adequate cause, but were not prepared to incur serious risk to their own and their subordinates' lives for the sake of trying to save a particular portion of an abandoned mine, the value of which was considered, and apparently justly considered, to be very little. If it was possible, with due regard to safety, to put the stopping in some distance from the haulage-road instead of close to it, then it should have been done, and it would have been an error in judgment not to have at least attempted to save the road, by making the stopping as far as possible from the road; but Mitchell and Tennent both say this could not be done without serious risk to life, and the evidence to the contrary is not sufficiently satisfactory for us to find they were wrong in their opinion.

On Friday, 2nd February, after the fan was put in, and the party had got within a chain of the fire, a heavy fall took place, and a flame of fire came down the heading. The evidence of John Clark appears to us to be candid and truthful, and we accept it as a correct statement of what happened. When pressed he says he thinks Dixon used the means he thought best, but suggests that personally he would have put in a good stopping on the Bridge side of tunnel, then a good tight brattice or wall in the mouth of the tunnel, taking it in with him; and tight stoppings in all the bords as he went along, and taking air into the old workings and sealing them off as he went along. In cross-examination he says: "We put stopping in on the Bridge side as far as we could with safety—there was a risk in putting it in further. In the mouth of the main entrance the air was so bad it knocked us over. The air would perhaps have been no worse further in, but it would have been more difficult to get out." This witness appears to us to be independent, and his evidence is valuable in weighing the evidence of Mitchell, who may perhaps be said to have some interest in maintaining that the best method under the circumstances was adopted. Tennent says: "Dixon and I tried by all practicable means to save the haulage-road. If we had tried to save the haulage-road by stopping all the bords the broken overlying strata over the pillared ground would have supplied fresh air to support combustion. When I left Dixon my instructions to him were to brattice off all the openings on each side of main haulage-road, but it was not done when I came back. I do not know why. He said he did not think it necessary with the air-current he had. We made an effort to cut off at No. 6 on 5th February. We were beaten back." This is one of those instances we have before referred to in which Mr. Dixon's explanation of his reasons for taking the course he did is essential to forming a judgment as to whether there was no better way of dealing with the crisis than the way he took.

Under this heading we are of opinion that the Westport-Cardiff Company did the best they could under the circumstances in engaging Mr. Dixon, and that he did all that he considered advisable or reasonably safe to do under the circumstances, and that though it may now appear that possibly an attempt might have been made to save the haulage-road by stopping all the bords leading from the fire thereto, no censure can reasonably be passed upon him for having decided not to take this course. Such an operation would have been attended with some risk, would not have been certainly successful, and the condition of the property was such as to render much risk unjustifiable.

(3.) *As to the Steps taken by the Inspector of Mines at Westport to suppress or extinguish the Fire during the Time the Mine was in Occupation of the Westport-Cardiff Company (Limited), and since the Possession of the Mine was resumed by the Crown on the 23rd May, 1900.*

Many of the observations made by us and much of the evidence quoted under the last preceding heading apply also to this.

When Mr. Tennent returned to the mine on the 5th February all chance of saving the haulage-road had passed. The outcrops were on fire, the internal fire had gained great power, and the extinction thereof must then necessarily be gradual and based on a thorough confinement to a known area. The plan Mr. Tennent adopted and his reasons for it, may be told in his own words. He says: "On the 5th February I found everything satisfactorily sealed off, as Mr. Dixon had left it, and before opening the stoppings I went to the Bridge end, where I found an active fire burning at the highest point of the Hector outcrops. Giving instructions to start the fan, I went to the main entrance and opened the stopping. Having a party of ten men, and leaving a man at regular stations, I proceeded to the junction of the furnace-drift, where the fire was found ahead in main haulage-road, and a dense volume of heated smoke rolled down the furnace-drift, where it was impossible for a man to live two minutes. I determined to seal off the mine permanently 2½ chains in from daylight, and a strong party of men were told off to prepare the walls for stopping, and the work was carried on all night. About midnight of 5th February a most extensive fall or explosion occurred inside the mine, and if we had been further in all the men would have been lost. This fall cut off our ventilation from the fan, and it was with great difficulty that the inside wall of the stopping was closed. That was from the effect of black-damp, which was forced back

towards us. We closed it by 3 p.m. on Wednesday. The dam was built of two walls of 3 in. planking, with 5 ft. of solid puddled clay between them. On Thursday we went to the Bridge end and built a similar air-stopping. The gases were not so bad there. On Monday the furnace-shaft was filled, being securely covered with cloth and clay; when we broke this a volume of smoke and flame burst out. This shaft was filled to the surface by 2 p.m. On the previous evening the caretaker of the mine showed me a telegram from his manager to stay expense and do no more. Friday's work was done on my own responsibility. There were ten men employed, and the company paid them ultimately. That was the end of the operations until the 24th February—up to that date no Government money had been expended. I had no authority to expend any money. Mr. Hayes then came. We got £20 from Bayfeild, the local agent of the company, to build a dam in the main entrance behind the main stopping. I intrusted the work to Mitchell, who was the underviewer. Mr. Hayes and I left on a further tour of inspection. We returned in three weeks, when the dam was finished and the water was to the roof. There was a little leakage behind one of the props, but nothing of any consequence. On 25th April I met Martin at Bridge side, and asked him if he thought he could take up leakage in dam, and he said 'Yes'; and I instructed him to put the dam right. On 2nd May I went with Mitchell, and met Martin at main entrance; we found a large body of water rising from under the bed-log of the dam. I asked Martin if nothing more could be done to save the dam, and he replied, 'I don't think so.' I reported the matter to the Mines Department, and instructions were given me to proceed with another dam, which I did. The new dam seat was partly excavated, but, as I could not attend to it at the time, I told Mitchell to let the matter stand. Messrs. Shore, Alison, and Foster came on the ground 17th May. They cut a manhole through Martin's dam with the object of getting into the mine. The blackdamp was so dense that they could proceed no further. On 18th June I was instructed to take any steps I chose to save the property. Since then we have built another dam, which was finished 9th August; and still another dam, which was finished 4th January, 1901. The water is now rising in the outcrops. We can raise the water 30 ft. on the dam, and the fire is now confined to extreme outcrops on Hector block, and I think there is no danger of its extending. As far as I know, everything has been done to save the property. I think no mistakes have been made. Practically, I think no marketable coal has been destroyed. The coal that has been burned is the pillars and exhausted pillared outcrops of the Hector block which could not have been worked. We expect the fire to die out in a few months; it is being overcome with water, the falls of earth, and want of air. Until the fire is out—that is, until the outcrop is burned to the water—the mine cannot be worked. The mine was practically exhausted and had ceased work for months previous to fire. I think the fire originated in the Hector pillared outcrops in No. 2 incline owing to pressure on pillars."

This is the substance of the statement made by Mr. Tennent on this part of the case, and we wish we could have had Mr. Dixon's statement, and have compared both with the evidence of other witnesses.

We are of opinion that under all the circumstances, and on the evidence presented to us, there is no ground for passing any censure upon the Inspector under this head.

(4.) *As to whether the Means adopted by the Company and Inspector were intelligently undertaken and continued, and were sufficient under the Circumstances with the Means at the Disposal of the Company and Inspector respectively to prevent the Fire spreading, and ultimately to lead to the Extinguishment thereof.*

In dealing with the previous headings we have been compelled to cover most of the ground occupied by the last. There is much evidence as to the details of the work done, and a good many different opinions expressed, and some suggestions of foul play. We are of opinion that the question may be answered in the affimative, and that, subject to the observations previously made, no blame can be attached to the company or the Inspector, and that both Mr. Dixon and Mr. Tennent acted intelligently and to the best of their ability in dealing with the fire, and that the means taken, though slow, will be effectual. The coal in the outcrops on the Chasm Creek slope must burn out, and the interior of the mine must be placed under water. For this purpose a dam has been erected at each main entrance to the mine, a pipe has been brought across Chasm Creek at a considerable height above the tunnel, and a stream of water has for some months been steadily pouring into the mine through the crevices in the outcrops, and this stream, added to the drainage of the mine, has resulted in the water in the mine rising to the top of the main heading. The fire inside has decreased in power, and when the portions of the outcrops above the water-line have burned out the fire will be ultimately overcome, but the numerous crevices in the surface of the ground over the Bridge end of the tunnel prevents the water rising as high as it otherwise would. The mine, as a mine, is almost destroyed the main haulage-road is probably lost, and it is doubtful if it will pay to put a fresh road in for the coal that remains.

We think there is no proof of any foul play as regards the dam, and that the evidence as to finding the dynamite plug under the bed-log of the dam is inconclusive of any attempt to wreck the dam.

We submit some observations upon the matters contained in the petition of Messrs. T. Corby and others, and on which some evidence was given before a Committee of the House of Representatives. The allegations in that petition are:—

1. That a large area of valuable coal the property of the colony is through the continuance of the present fire threatened with destruction.
2. That at the first discovery of the present fire had simple means, such as any ordinary miner would have employed, been adopted, the fire could have been easily extinguished, and with little or no expense.
3. That, instead of this, evidence can be brought to prove that the means taken to subdue the fire had the opposite effect—viz., to make it burn with greater force.

4. That the present methods which are being taken under the direction of the Sub-Inspector of Mines are, in our opinion, wholly inadequate and impracticable, and a sheer waste of public money.
5. That the residents of Seddonville and surrounding districts depend in a very large degree upon the working of the coal-mines for their support, and it is a matter of pressing concern to them that every reasonable means should be taken and every practical and adequate method adopted to subdue the Cardiff fire and save the coal-measures of the locality from destruction.
6. Should the inquiry prayed for by us be granted, reliable evidence will be forthcoming to prove that official negligence, delay, and incompetence have been the contributing causes which have prevented the subduing the fire in its early stages; and the same causes are operating at the present time to render the work now in progress not only futile but absolutely destructive.

With the exception of paragraphs 1 and 5, the statements in this petition can hardly be treated seriously, nor do we think they were intended by the petitioners to be so taken. The keynote of the petition is in paragraph 5. At the time of our visit in January last we found the Settlement of Mokihinui stagnant from the cessation of work in the mines, and those who had their savings invested in property there threatened with the loss of all they possessed. This state of things had then existed for a considerable time. Moved by the pressure of these circumstances, the active members of the community prepared, in or about October, 1900, a petition to the House of Representatives containing such startling allegations as they knew must cause serious attention to be paid to them, and they have so far succeeded in drawing the attention of Parliament and the Government to the locality that some arrangements have been already made for resuming work in the mines. If the end does justify the means, then the language of the petitioners was justifiable, but on no other grounds.

Having dealt with the specific matter of the fire at the Westport-Cardiff Mine, we proceed to the more general question under the heading of—

(5.) *The Management, Control, and Inspection generally, in Terms of "The Coal-mines Act, 1891," and Regulations thereunder, of the said Coal-mine, and also of the following Principal Coal-mines of the Colony.*

We propose to give a short description of each mine we visited, and make our general observations and suggestions afterwards.

Hikurangi Coal Company.

Situation: This mine is situated about eighteen miles by rail from the Town of Whangarei, which lies sixty-five miles by sea north of Auckland.

Area: 800 acres; about 400 estimated to contain coal.

Ownership: Mostly the freehold of the company, but a small portion is leased from an individual freeholder.

Capital: Nominally £15,000 in 30,000 shares of 10s., of which 7s. 6d. is considered paid up.

Quality of coal: Semi-bituminous and a fairly good steam-coal. Not used except locally for household purposes.

Output: About 3,000 tons a month. Total output from beginning, 200,000 tons.

Average cost per ton: 4s. 2d. a ton at tip; 6s. 8d. f.o.b. Whangarei.

Average price obtained: 7s. 6d. f.o.b. Whangarei.

Wages earned: From 8s. 6d. to 9s. a day.

Number of men employed: From fifty to sixty, according to demand.

Amount distributed in wages, &c.: About £500 per month.

Transit: The coal is shipped at Whangarei in sailing-vessels carrying from 50 to 150 tons. The harbour does not allow of heavy draught, and special vessels would have to be provided to carry much larger quantities. The freight is 3s. 6d. a ton, and sometimes less than that.

Method of sale: The coal is chiefly sold to a Captain Smith and the Northern Steamship Company. The coal was not at the time of our visit quoted on the Auckland market.

Mine-management: Very good. The ventilation appears to be very fair, and is so reported by Mr. Inspector Coutts. Roads and working-places in good order. No dissatisfaction among miners as to mine. Altogether we can report favourably on the management of this mine.

Disputes: There has been one case as to wages before the Conciliation Board, which has been settled apparently to the satisfaction of owners and men.

Prospects: It will be necessary to begin operations on the eastern side of the railway-line, when a considerable expenditure must be incurred. The mine appears to have been a profitable one to the shareholders, 10-per-cent. dividends being the rule. The only matter brought under our notice by the owners was the question of railway-haulage, which they suggest should be reduced, and we have dealt with this question under a subsequent heading.

Hikurangi Collieries Company (Limited).

Situation: Near the Hikurangi Coal Company's Mine.

Area: 258 acres.

Ownership: The Hikurangi Collieries Company (Limited).

Capital: £10,000 in 30,000 shares of 2s. 6d. each.

Expenditure: £2,000.

Tenure: Government lease under Coal-mines Act.

Quality of coal: Inferior. Semi-bituminous.

Output: About 34,000 tons per annum. Total output, 190,000 tons.

Average cost to company: 3s. 6d. a ton on railway-truck.
Wages earned: 10s. to 12s. a day; 10d. a tub of 12 cwt. When working, average £2 a week.
Amount distributed in wages: In all about £12,000.
Price obtained: 10s. 6d. at Auckland Wharf.
Number of men employed: Ten.
Transit: By railway to Whangarei, at 2s. 6d. a ton; thence by sailer to Auckland, at 3s. 6d. a ton.
Method of sale: Sold chiefly to a Mr. Craig, who has vessels.
Mine-management: Good. No fault to find. No complaints by men.
Prospects: The company is, we believe, in liquidation. They have lost all their capital. The coal is said to be exhausted. It was a very expensive mine to work.

West Bryan's Mine, Hikurangi.

We visited this mine, and took the evidence of the owner, Mr. McLeod, but, as the mine was closed and we could not enter, we offer no report thereon.

Ngunguru Coal-mines (Limited).

Situation: On the bank of the Ngunguru River, North of Whangarei.
Area: 2,000 acres.
Ownership: The land is leased by the company from Native and European freeholders.
Capital: £10,000 in 20,000 shares of 10s. each, and 6,000 shares fully paid up.
Quality of coal: Sub-bituminous; fair for steam.
Output: 1,300 tons a month. Total output from mine, about 101,000 tons.
Average cost to company: 3s. 4d. a ton to hew.
Wages earned: 8s. to 9s. a day.
Amount distributed in wages and expenses: £500 a month.
Prices obtained: 12s. 6d. a ton in Auckland.
Number of men employed: Forty-one.
Transit: It is put on board small sailing vessels or scows and taken to Auckland or Thames.
Management: Good; ventilation fair.
Prospects: Not very promising. Estimate of 35,000 tons still in mine with the chance of further supply on prospecting.

Kiripaka Coal Company (Limited).

Situation: On bank of Ngunguru River.
Area: 45 acres.
Ownership: The Kiripaka Coal Company (Limited).
Capital: 10,000 shares of £1 each with 5s. paid up.
Expenditure: About £500 to open mine.
Tenure: Freehold, leased from Native owners.
Quality of coal: Semi-bituminous.
Output: About 400 tons a week. Total output of mine, 13,000 tons.
Wages earned: 9s. to 10s. a day.
Price obtained: 7s. 6d. a ton on board, Ngunguru.
Number of men employed: Twelve.
Transit: By scows to wharf, Ngunguru, thence by small sailers to Auckland and Thames.
Method of sale: Chiefly sold to a Mr. Winston, of Auckland, and to North Shore Ferry Company.
Mine management: Good.
Prospects: Fair. Said to be 100,000 tons in mine. Company has had two 10-per-cent. dividends and have several years' work ahead.

Taupiri Coal Mines (Limited).

Situation: On Waikato River, at Huntly, sixty-five miles south of Auckland.
Area: 2,000 acres.
Ownership: The Taupiri Coal-mines (Limited).
Capital: £85,000 in 85,000 shares of £1 each—72,000 are paid up, 13,000 are unallotted. This nominal capital really represents the interest of the amalgamated companies in the property, and does not represent cash.
Expenditure: £20,000 written down to £9,000 at extended mine, and £18,000 at other two mines.
Tenure: Lease from various private owners.
Quality of coal: Very good household coal—said to be fair for steam, but cannot compete with Waterborne coal from Whangarei Mines.
Output: 78,000 tons a year. Total output, 1,026,000 tons.
Average cost to company: 5s. 8d.
Wages earned: £2 5s. a week, or 9s. a day when working. There has been much broken time. By the ton, the men are paid 2s. 9d. for household and 2s. 3d. for steam.
Price obtained: 7s. 3d.
Number of men employed: 180.
Transit: By rail to Auckland, costing 6s. 6d. a ton.
Mine-management: The ventilation in the past has been deficient, and not sufficient strictness in observing the requirements of the Act has been shown. There is every prospect of an immediate improvement in this respect, and also in providing two *known* means of egress from the mine. The

ventilation in the Kimihia Mine is the most seriously deficient, and the methods heretofore adopted have been unsatisfactory, and must be altered.

General observations: There were originally four companies at work at Huntly. The Taupiri Extended was the principal company, and opened their mine about twenty-five years ago. Then came the Taupiri Reserve Company; then the Waikato Coal Company. The Taupiri Extended leased their first mine from Mr. Ralph. This lease ran out ten years ago, and they then opened the present mine on 150 acres of freehold land adjoining the old mine. Shortly after that Messrs. Ralph and Biss sank a shaft near the river and opened the present mine. There was not sufficient trade for four mines, and the Taupiri Extended and Taupiri Reserve Companies leased Ralph s mine at £800 a year and kept it closed. The four companies have now been combined into one company. The Extended Mine and Waikato Mine are doing very little, and the chief work is being done in the Kimihia and Ralph Mines.

SOUTH ISLAND—WEST COAST.

Westport Coal Companies' Mines.

The importance and magnitude of these mines require some more detailed observations than usual. The statement taken by us from Mr. Joachim, general manager of the company, is interesting and valuable. He says the company was incorporated in 1882 with a nominal capital of £400,000 in 80,000 shares of £5 each, of which 69,000 have been issued, leaving 10,000 unallotted. £3 10s. per share has been called up and paid, but 10s. a share has been written off for losses, leaving £3 a share equal to £207,000. Debentures have been issued for £65,000, and there are other liabilities equal to £40,000. The whole of this capital and the money from debentures has been expended in developing the mines. The company have paid away the following amounts:—Wages: £960,690; royalty, railway haulage, rates and taxes, £510,992; freights to local carriers, £708,413; stores, £86,397; new works and plant, £154,747; repairs and sundries, £23,214; total, £2,444,453.

The leases held by the company comprise 5,430 acres on the Buller Coal Reserve. The output from 1883 up to the present has been:—1883, 34,997 tons; 1884, 74,319 tons; 1885, 47,748 tons; 1886, 73,933 tons; 1887, 115,940 tons; 1888, 130,218 tons; 1889, 163,914 tons; 1890, 160,240 tons; 1891, 192,604 tons; 1892, 198,190 tons; 1893, 223,511 tons; 1894, 215,770 tons; 1895, 183,744 tons; 1896, 211,472 tons; 1897, 243,617 tons; 1898, 279,541 tons; 1899, 327,015 tons; 1900, 368,334 tons: making a total output of 3,245,107 tons.

From 1882 to 1887 no dividend was paid, but since then the dividend account stands as under:—1887, 2½ per cent.; 1888, 5 per cent.; 1889, 6 per cent.; 1890, nil; 1891, 7½ per cent.; 1892, 7½ per cent.; 1893, 7½ per cent.; 1894, 6 per cent.; 1895, 6 per cent.; 1896, 6 per cent.; 1897, 6½ per cent.; 1898, 7 per cent.; 1899, 7½ per cent.; 1900, 8 per cent. The dividends paid equal 4½ per cent. on the capital from commencement of company in 1882.

The company's mines may be divided into two main divisions—viz., the Denniston Mines and Millerton or Granity Creek Mines. The Denniston Mines, known also as the Coalbrookdale and Ironbridge Mines, are situated on the Denniston Plateau, about fourteen miles north-west of Westport, between the headwaters of the Wareatea and Waimangaroa Rivers, at an elevation of about 1,800 ft. above sea-level, and contain 2,480 acres. The coal has to be lowered down two inclines, covering a distance of one mile, with a drop of 1,700 ft. The upper incline is 33 chains in length, with a vertical fall of 830 ft. on a grade of 1 in 1·3. The lower incline is 50 chains in length, with a fall of 864 ft. in that distance, the maximum grade being 1 in 2·2. The inclines are worked by direct rope haulage, and the descending weight is utilised to draw up the empty return wagon. The wagons or trucks are the ordinary Government railway-trucks, holding about 7 tons each, and one truck is lowered and one hauled up at each operation of the rope. The gross weight of the load, truck included, is about 11 tons. A 4 in. steel-wire rope is used, special hydraulic brakes are provided, and accidents are few; but the loss of a truck costs the company £116, that being the price charged by the Railway for each truck lost, and a slip or break-away generally involves the destruction of the truck. About fifteen trucks, or 105 tons, an hour is the average speed of lowering. The company own a private line, from the foot of the incline to the Government Railway at Wellington Mine Station, Waimangaroa, a distance of about a mile and a quarter. The Railway Department take charge of the trucks at the foot of the incline, and have an arrangement with the company for adjusting the haulage over the company's line. The trucks are filled at the bins at the top of the incline at Denniston, and before the coal arrives at the bins it has to be brought in mine-tubs by means of an endless rope, distances (according to the working-place it comes from) varying from two to four miles.

The Granity Creek or Millerton lease is situated about ten miles north-east from the Coalbrookdale workings, and contains 2,950 acres. It lies at an elevation of 1,500 ft. above the sea and the railway which runs along the beach. At this mine, instead of railway-trucks being taken up the hill, the coal is lowered in the mine-tubs by means of an endless rope, with very powerful hydraulic-brake machinery, and is the most complete and expensive plant of the kind in the colony. The lower incline is 50 chains long, with a grade of 1 in 3·75, and carries, when fully loaded, fifty full tubs and fifty empty ones, on alternate sides. The tubs hold 17½ cwt. of coal each, and travel two and a half to three miles per hour, and can thus put out 1,600 tons in eight hours' work. The upper incline is 51 chains long, and extends 28 chains into the mine, making a total length of 79 chains, with an average grade of 1 in 15, and can work up to seventy-nine tubs on each side. At the foot of the incline there is a very effective screening apparatus, capable of turning out, it is said, 400 tons of screened coal in eight hours. Storage-bins for 1,500 tons, and all other appliances for placing the coal on the railway-trucks are also provided. Additional bins were in course of erection at the time of our visit in January last.

We were greatly pleased with these works and appliances at Millerton, and have nothing but praise for them. The company has profited by its experience at Deniston, and has had the advan-

tage of securing great engineering skill in designing and erecting the plant and machinery. The company itself claims that the plant is the most perfect of its kind in Australasia, and we hardly think this claim is exaggerated.

The practice of this company appears to have been to make no distinction between the coals coming from their different mines. The general manager says he prefers to reckon the price at the foot of the incline in each case, and he fixes the price at 7s. 10d. a ton, and, adding railway haulage, 2s. 6d., and royalty 6d. = 10s. 10d. f.o.b. Westport. Mr. Joachim says that only one-fifth of the coal taken from the mine is fit for sale as screened household coal, and he divides the price in this way: 1 ton of screened coal at incline, 14s., and 4 tons at 6s. 3d., average, 7s. 10d. The freight to Wellington is 5s. 6d. The trade get screened coal at £1 2s. 6d. He says:—"Six months ago we raised the price 1s. We could sell unscreened coal in Wellington at 18s. 6d. and should be glad to sell it at that. The retail price, Dunedin was £2 for screened household. It was £1 17s. up to January last. We get £1 4s. 6d. at the ship's side in Dunedin and £1 5s. 6d. at Lyttelton. We screen coal at Lyttelton and charge £1 8s. for it. In Auckland we get £1 4s. to £1 7s., according to size of cargoes." The Christchurch agent of the company, Mr. Thomas Brown, told us that they sold coal free on trucks at Lyttelton: screened, £1 5s. to £1 6s.; unscreened, 19s. 6d. to £1 1s.; small, 16s. to 16s. 6d.; and in some large contracts, 15s. 6d. for small. Out of 100 tons of face-coal they would get 40 tons of round or screened household and 60 tons small, or nuts and slack. Taking 100 tons of face-coal at 18s. 6d. = value, £92 10s., and adding 2s. 6d. a ton for labour in screening, £12 10s. = £105. He produces screened coal, 40 tons at £1 8s., £56; small coal, 60 tons at 16s., £48 = £104. The question of price and distribution will however, be discussed under another head.

The Westport Coal Company may be said to have in round numbers about half a million of money invested in the mines. The colony has an even larger sum invested in the harbour works at Westport and in the railway from Westport to Mokihinui. The present prosperity of the town of Westport is dependent, in a very large degree, upon the coal-mining industry, and should it fail, the town will fail with it, and the colony will lose largely on the investment in harbour works and railway.

The following memorandum supplied by Mr. Greenland, secretary of the Westport Harbour Board, shows the expenditure from 1st January, 1885, to 31st December, 1900 (prior to 1885 perhaps £20,000 had been spent on the harbour):—Ordinary harbour management, £53,772 14s. 7d.; interest and sinking fund, £271,246 9s. 5d.; harbour works, £589,198 19s. 11d.; railway from Ngakauwau to Mokihinui, £37,288 18s. 8d.; purchase of Mokihinui Company's railway, £15,745; total, £1,033,283 10s. 1d.

To supply this expenditure the sum of £620,000 has been borrowed at 4 per cent. by the Harbour Board, under a General Government guarantee, and the balance (£413,283 10s. 1d.) has been supplied from the revenue of the Board. To this expenditure must be added about £100,000 the colony expended in the railway from Westport to Ngakauwau, the success of which depends almost entirely upon the coal-trade. At present the Board is in a very prosperous condition, and shows an annual surplus of revenue over expenditure and interest of over £12,000, and it is intended to expend further moneys in improving the harbour and the facilities for loading vessels at the wharves. The colony has, therefore, a very substantial and direct interest in the continued prosperity of the Buller coalfield. If the present output can be increased, or even maintained, there will be no danger of either the company or colony losing money. We are not, your Excellency, professed geological experts, and we have not been called upon to examine the coal-measures with a view to our reporting upon the quantities still remaining, but it does not require a professional geologist or an exhaustive survey to know that the estimate put forth by the Geological Department, as being still a reliable estimate of the quantity of coal in the Buller Reserve and elsewhere in the colony, is deceptive, and though there might be some excuse for publishing it under authority in 1888, we are surprised that it has been republished in the *Mines Record* of 17th September, 1900. The gross quantity of coal estimated by Sir J. Hector to be contained in all the then-known coalfields in New Zealand was 443,948,000 tons. That estimate was made in 1888, and is only put forth as a rough estimate calculated from imperfect surveys. In 1900 the editor of the *Mines Record* gravely deducts 8,833,425 tons known to have been taken from the mines, and leaves the balance as the quantity calculated to be available. In the meantime it has been demonstrated that the data on which these quantities were calculated were absolutely misleading. Kawakawa was estimated to contain 11,000,000 tons, but the mines opened are exhausted after producing less than 1,000,000 tons, and there is only too much reason to fear that the other estimates are equally overstated. As to there being 138,000,000 tons in the Buller, as estimated in the table published, the only chance of there being anything like that quantity consists in the possibility that there may be deposits on the flats and beneath the sea, of which at present no sign has been discovered, and of which, consequently, no account was taken in framing the estimate. The coalfields of New Zealand have confounded all the previous knowledge of professed experts, and the conclusions drawn from data as to quantity have been already proved misleading and fallacious. The method of computation of quantity appears to have been as follows:—An acre contains 4,840 square yards, therefore coal with a superficies of 4,840 square yards and a depth of 1 yard contains 4,840 cubic yards, and generally, speaking of solids, as many tons; deducting 1,840 tons for waste, there is left 3,000 tons per acre on a 3 ft. seam, or 1,000 tons per acre per foot of seam. This is the formula adopted in estimating quantities of coal in a coal area, and when there is a small area, as that covered for instance in the Brunner workings, it turns out to be fairly correct. The fallacy lies in taking thousands, or even hundreds, of acres, and reckoning them as all containing the seam or seams of coal. Experience shows that it is very rare to find coal in New Zealand evenly distributed over even a small area, and that the outcrops are not to be relied on as indications of continuous seams. The hundreds of millions of tons in Sir James Hector's estimate

are dependent on conditions which experience shows do not exist in this colony. We feel it our duty to state in the plainest way that there is no unlimited coal supply in New Zealand, but that, so far as is known at present, the supply is comparatively small, and will be all wanted for the colony's requirements. Of course there is a possibility that further research may find large deposits, but at present those deposits are not known, and should not be depended on. These observations are made with reference to the coal-deposits of New Zealand generally, and also with reference to the Buller Coal Reserve in particular.

The success which has attended the harbour works at Westport is very gratifying, showing skill in design and execution. Vessels drawing 18 ft. to 20 ft. can safely enter the harbour, and as much as 3,000 tons has been taken out in one vessel. The town of Westport has trebled its population during the last fifteen or sixteen years, and its permanence and prosperity depends very largely on the coal-industry. Coal and gold are practically its only resources, for nature has denied it any land fit for agriculture or grazing. Gold-mining has been hitherto subject to the periodical "booms" and lulls generally incidental thereto, although there are very promising indications that it will develop some day into great importance. In the meantime coal is the foundation upon which the place exists, and should a failure in supply take place, very serious indeed will be the consequences, not only to the individuals comprising the population, but also to the colony generally, which would have to find any deficit in the interest on the Harbour Board loan.

A full inquiry was held by us at Denniston as to the inspection, control, and management of the Westport Coal Company's mines, at which the owners of the mine and the Miners' Union, representing the men employed underground, were present by their authorised agents.

Certain specified charges were made by the Miners' Union, which may be summarised as under:—

1. Want of proper ventilation.
2. Allowing inexperienced persons to have charge of a coal-face.
3. Want of two separate outlets to mine fit for men to travel.
4. Closing Big Dip section of Coalbrookdale Mine before coal extracted.
5. Specially charging the Inspector, Mr. Tennent, with allowing the matters above alleged to exist.
6. Specially charging Mr. Tennent with communicating the names of persons complaining of matters connected with the mines, and thus contravening section 44 of "The Coal Mines Act, 1891."

Ventilation of Mine.—At Granity Creek we found the mines well ventilated, and from inquiries we personally made from the men we believe that no cause for complaint exists. William Madison, the secretary of Granity Creek Miners' Union, who has other causes of complaint against the company in respect to machine-working, says he worked four years at Dip and Rise sections of Granity Creek Mine, and found the ventilation very good in all parts. William Davidson, who, in conjunction with Madison, acted as check-inspector for the men, says that everything was in good order. The evidence taken on this head was very short, as there appeared to be a genuine feeling of satisfaction among the men employed in this mine, with the company, and the way it provided for their health and safety.

Means of Exit.—We found ample provision under this head, and no complaint was made. We took pains to ascertain from the men, in an informal manner, whether there was any ground for complaint, and whether there was any apprehension on their part that harm would befall them if they communicated anything against the management, and we satisfied ourselves that in Granity Creek no such causes existed.

Denniston Mines: Ventilation.—These mines have been working for nearly twenty years, and we are of opinion that in past years there were occasions in which ventilation was deficient. Many causes contributed to this—want of experience being probably the chief. The company, even when their prospects were the reverse of cheerful, appear to have been liberal in the outlay of money, and want of funds, too often the excuse for bad work in mining-ventures, has not been alleged by or against them. Messrs. Foster, Dellaway, Patz, Cadman, Brown, and Moye, all miners employed in the mines, speak of the air being bad on occasions, but no formal complaint was made to the management, and, generally speaking, if a miner complained to the underground-manager, the defect was remedied. Foster says, "I believe men have come home from want of air. We did not represent this to the Inspector, as we had lost confidence in him." The incident in the Cardiff Mine, *re* Beirne and others' letter to the Minister of Mines, is given as the reason for loss of confidence; but we think that, as this was a solitary instance of letters being divulged, a little too much stress is laid on it by the men, and their natural independence, coupled with the freedom with which they criticise the action of the company, rather repels the idea that they were afraid to speak. Patz, the secretary of the Union, and one of the check-inspectors, says, "The Lady Glasgow section was bad twelve months ago. Menzies' Jig was improved recently, after attention of mine-manager was drawn to it. I complained to Dunn (underground manager). You will find it reported in book, and it was remedied. I have no other instances to cite. I have been check-inspector for the men, and when I found fault I complained. I do not know if my complaints have all been attended to. I wrote my report in company's books." The reports of the check-inspector were put in before us —they extend from October, 1898, to December, 1900, and are signed by Messrs. Hollows, Little, Patz, and Moye, according as the inspection was made. These reports have such a bearing on the charges made against the management that though we do not quote them at length in this report we desire to call special attention to the evidence in which they appear. If these reports are to be depended on there is no ground for a charge of neglect in respect to ventilation by the management.

The Inspector, Mr. Tennent, says, "I first inspected Denniston Mines, July, 1897, and afterwards every two or three months. I found general ventilation good. I have seen an odd place

now and again not so good. I always had it attended to. Brattice would be put up. I never had a complaint."

The mine-manager, Mr. Lindop, claims that the mines, as a whole, are the best ventilated in the world. They may be, and yet places may occur therein in which the air has been deficient. He says, "Everything possible has been done, and they have been favoured by nature—they bore out to daylight in numerous places." He says, "We have only forty miners on piece-work and eighty on wages; it is to our interest to ventilate well. There are 400 employés in all." He produces books signed by check-inspectors showing the ventilation to be satisfactory to the men; and certainly if there was a deficiency in ventilation, these check-inspectors, who are appointed by their fellow-workmen to protect their safety, are doubly blamable. We think that though there were occasions on which the air was comparatively bad, these were exceptional cases, such as a drive being taken to daylight, or a stenton being driven to a bord in a particular place, and that, as a whole, the ventilation for a good many years has not been seriously deficient. There is little excuse for deficient ventilation in these mines. It is true, as Mr. Lindop says, that they have been favoured by nature in facilities for ventilation; but it is also true that, as a rule, the safer the mine is naturally, the more careless the workers therein will be. We have seen a mine with a naturally good roof, requiring very little timber, absolutely unsafe, because that little was not supplied. We have seen mines difficult to ventilate amply supplied with air by artificial means, and natural facilities for ventilation do not always mean good air. At the time of our visit we found the air good and the ventilation satisfactory in every part of the mine. We found an ample supply of brattice-cloth erected where required.

Charge of allowing Inexperienced Persons to have charge of a Coal-face..—Whatever the *form* of this charge may be, we find that it is in *fact* an attack on the machine known as the "iron-man." This is a machine worked by compressed air, and is used for "holeing," or undercutting the face of coal, and it is found that men who have worked in quartz-mines and other mining-work are, after a few months' experience, at least as efficient in working this machine as men who have wrought long years in coal-mines and are prejudiced against the machines. The party who make the charge against the management cite one instance only of an accident occurring during the use of the machine. In that case a man named Hart was injured in August, 1900, through the coal coming away from the face after it had been holed or undercut by the machine. The accident was probably, if not certainly, due to deficient spragging. The injury did not turn out to be serious, the man being laid up for about a month. It is alleged that the accident arose through the ignorance of the man who was working the machine. This man was an experienced quartz-miner, and had worked in a coal-mine for eighteen months; but we are of opinion that the accident did arise from his neglecting the prescribed precautions in spragging. This is a fault which is not uncommon in experienced coal-miners, and some of these have, according to the evidence, been themselves prosecuted for negligence in spragging coal. Workmen in coal-mines, from the youngest boy to the oldest miner, have to be protected against their own carelessness. We think the charge as made is not proved by adducing one instance of neglect. Mr. Lindop, the manager, says, "The old miners are much opposed to the machines. We have tried them, but they refused to work the machines." We are of opinion that, with ordinary care, the machines are safer than the old way of holeing with a pick; but, again, we observe that the safer the conditions the more careless the men are, and accidents thus occur which might be prevented. This accident to Hart was the only accident which occurred during the three years the machines have been in use.

Want of Two Separate Outlets to Mine.—This charge is the same as that made against the Westport Cardiff Company, and we have dealt with it fully under that head. There is no foundation for it. There have always been two means of egress and ingress to the mines at Denniston and Granity, and generally there are more than two, but men are not allowed to travel them unless in cases of emergency, for the reasons we have before stated. We think, however, that it should be made compulsory on mine-owners to have notice-boards pointing out "Way of Escape," and that periodically the men should be taken through these ways, so that they may know them when the emergency calling for their use arises.

Closing Workings before all Coal extracted.—This is a charge easy to make, but hard to prove or disprove. The interests of the mine-owners tend to induce the extraction of all the coal available, subject to the possibility of financial pressure and the state of the coal-market, inciting owners to skim over expensively worked portions of the mine, in order to get easily won coal of higher quality. We cannot rely much upon the opinions of the workmen, as opposed to those of the owners, on a question involving so many interests and much engineering skill. The covenant in the lease to the company is that "the lessees will work and manage the said mines in the most approved manner, and to the satisfaction of any Inspector of Mines appointed under "The Coal Mines Act, 1891," and so as to do as little injury as possible to the surface, and without committing or creating any waste or unnecessary loss of coal, and shall and will raise and draw the slack that may be gotten in the said mine, or so much thereof as may be necessary to preserve the said mine clean and not exposed to any danger or damage by fire."

It will, therefore, be seen that unnecessary waste or loss of coal would be a breach of covenant of the lease for which the lease might be determined by the Crown and possession resumed. The Inspector says: "The company carried out the workings in the Big Dip section to the best advantage. There is no get-at-able coal left in the Big Dip. The coal under dispute is a thin seam with stone bands in it, and not worth taking out. I have no authority to order the company to work any particular place. It was not possible to take out the remainder of the coal then. It had a tendency to damage the terrace and endanger the machinery. It will be possible to work it at any time, but it will not be worth working—it depends on the price of coal."

We see no reason to differ with this opinion of the Inspector. It is a most regrettable fact that, owing to faults, bands of stone and soft coal, a vast quantity of coal must be left until the price of coal has, through scarcity of supply, risen to almost famine prices, and thus made it

remunerative to work. This is the grave danger to the coal-industry of New Zealand. The mines are disappointing expectations, based upon external indications, but it is idle to blame mine-owners for omitting to work seams which can only be worked at a loss.

Mokihinui Mines.

Westport-Cardiff.—We have already given so full a description of this property that we deem it unnecessary to trouble Your Excellency with further observations thereon.

Mokihinui Company's Mine.—This company has had a chequered, and at some periods of its existence, a stormy career. Some portions of its history is recorded in a parliamentary paper of nearly eighty pages—C.–8, 1889. The conflict between Mr. Eugene O'Conor and the directors of the company during the year 1892 rose almost to historic importance, and is recorded in the said paper; but the company went into liquidation, and on the 21st February, 1899, the mine was handed over to the Government by the liquidators. Up to that date 43,000 tons of coal had been produced, and £40,000 capital lost. The seams in this mine are divided into three, viz.—the Big Seam Mine, the Upper Mine, and the Hut Seam Mine. In the first named, all the available coal is said to be worked out; the second chiefly contains soft coal; the last contains only coal-faulty, soft, and intermixed with stone. Such was Mr. Tennent's report in May, 1899, and there is good reason to believe that the feeling in the Mokihinui district against that officer arose from the unfavourable nature of his report. Mr. Corby candidly avows this to be the case, and others less candid hardly concealed the reason for their antagonism. We hope that it will be long before a public officer suffers for honestly-expressed opinions given in the discharge of his duty. Opinions may differ as to the value of the coal in this area, those who have little to lose and something to gain are apt to be optimistic in their view of mining-ventures; but Mr. Tennent's opinion is entitled to respect in this instance, and we have learned nothing which will enable us to differ from it.

The most hopeful area in this district is that known as the "Cave" area, of which Mr. R. B. Denniston, a well-known coal-expert, reported favourably, though not positively. We understand that this area will be tested, and, if possible, opened. It is situated in the Westport-Cardiff lease, and lies between that area and the Mokihinui Company's area. In May, 1899, a fire was existent in the Big Seam Mine, and we believe is still alive, though sealed off. It should be watched lest further mischief occur.

Last year a party of twelve practical coal-miners obtained a lease of the Mokihinui Company's Mine from the Government, and worked it on co-operative principles, with the result that they obtained 14,000 to 16,000 tons of coal from the Upper Mine, paying £3,000 to £4,000 in wages, and £2,200 to the Government for railway haulage, and £350 royalty. It is uncertain what further quantity will be obtained, but there is not very much known coal left in the mine. The coal which has been obtained by this party bears out the description given of it by Mr. Tennent. It is, however, a fairly good steam coal.

It is so long since the company worked the mine, and the men employed have so scattered over the colony, that no information was given us as to the inspection, control, and management by the company. At the time of our inquiry there were no complaints, and apparently no reason to complain. The mine was thoroughly ventilated and timbered, and apparently safe.

Grey Valley Mines.

The mines specially committed to our notice in this district are the Brunner Dip, Brunner Rise, and Blackball. The two former form part of a group of mines situated at the locality known as Brunner, on the Grey River, some eight miles above the town and port of Greymouth. Greymouth is the most important town on the west coast of the South Island, containing a population of 3,000, and is the centre of trade for Westland, Grey, and Inangahua Counties. A railway is completed to Reefton, and Greymouth is the terminus of the Midland Railway. It commands a considerable quantity of agricultural land, besides vast quantities of timber; its goldfields appear to be reviving, and its coal supply has largely contributed to its prosperity. The port of Greymouth has been improved at a cost of about £200,000 for which the Government of the colony has given a guarantee. In the year ending December, 1900, 624 steamers and twenty-four sailing-vessels entered the port, representing 199,834 tons; the average depth of water on the bar has been 20 ft. The harbour suffers from its exposure to heavy seas from the south-west and north-east, and is at times impossible to enter. The Reefton Railway passes close to the mines at Brunner, and within three miles of the Blackball Mine.

In 1891 a Royal Commission was appointed to inquire, *inter alia*, into the circumstances attending the coal-mining industry at Brunner, and we make use of the following data given in the Commissioners' Report:—

"The Brunner Mine consists of 1,280 acres, comprised in Section 2A Sq. 119, Grey Coal Reserve, a lease of which was originally granted to Messrs. Hughes and McCarthy for twenty-one years from 1st January, 1874. This lease was by them transferred to the Brunner Coal-mining Company in 1875, and afterwards, in 1879, to Mr. Martin Kennedy, who surrendered it in December, 1886, and obtained in lieu thereof a new lease for sixty-three years from 1st January, 1887, at an increased rental and output. This lease is still in force, but was acquired by the Grey Valley Coal Company in August, 1888. The conditions are the payment of a dead-rent and the output of a specific quantity of coal, as follows: First eight years' rent £480, output 45,000 tons; next 28 years' rent £750, output 75,000 tons; last 27 years' rent £1,000, output 100,000 tons, and during the first eight years a royalty of 6d. a ton, to be thereafter increased for the remainder of the lease to 1s. The dead-rent, however, is merely a minimum of royalty, and is not chargeable when the royalty exceeds it in amount. The output from this mine up to 1900 was 1,594,027 tons, and during the year 1899 was 96,511 tons; the total royalty paid to the Government amounted, at 6d. a ton, to £39,850. The property was assigned in 1888 to the Grey Valley Coal Company

(Limited), and forms part of the group of mines now held by that company—viz., the Brunner Mine, the Coalpit-heath Mine, the Wallsend and Tyneside Mines, all of which have, with the exception of the Brunner Mine, ceased to work."

In 1891, the Royal Commissioners (consisting of Sir James Hector and Messrs. Moody and Brown) reported as follows:—"Out of the area of 1,280 acres, 183 acres have been worked, yielding 778,325 tons, with an average yield per acre, before any of the pillars were removed, of 6,000 tons. There are several seams, but only the main seam has been opened on. It dips to the west, and the boundary of the leasehold in that direction appears to have been laid off with the view of securing only the portion of the seam which could be worked to the rise. As the water-level was advanced it was, however, found to bear off to the north-east, and at a distance of 18 chains from the entrance this coal is cut by the Brunner fault, to pass through which, threw the water-level still further to the east, and away from the boundary; so that the property has been proved to contain a considerable area of coal, which lies to the dip. That portion of the coal which lies to the south side of the fault has been worked out, but the large portion beyond the fault is still intact. The extension of the mine to the north is at present stopped by a second fault, which was partially explored three years ago by a stone drift, 13 chains long, and two bore holes, but without satisfactory results. As far as this fault the whole of the coal to the rise has been mined on the pillar-and-stall system. In what are known as the old workings lying to the south of the Brunner fault, the coal was very thick, frequently over 20 ft., and the chambers were very large, and when the roof flaked off were in some cases as lofty as 26 ft. This portion of the workings is now closed, so that its present condition cannot be ascertained. No pillars are now being worked there, but at a former time some of the pillars, at no great distance back from the outcrop, were partially removed, and some near the fault wholly excavated, and the roof allowed to settle. From the rise-workings beyond the fault the pillars are now being worked out, and the roof is settling down in a satisfactory manner. The coal in this part of the mine being much thinner, the pillars have also been worked out along the south side of the Brunner fault in the dip workings."

That report was published ten years ago. At the time of our inspection, in February, 1901, we found that the condition of the mine had not changed for the better. Mr. Alison, the present manager, says 360 acres have been worked, and that such area is bounded on all sides by cliffs, or thinning-out of the coal. There are, however, indications of a coal-seam at the back, but without counting on such possibilities there are only about 200,000 tons of available coal to be taken from the mine, when, if a new seam is not found, the mine must close. At present time the mine affords employment to 250 men, and the fortnightly pay amounts to between £1,200 and £1,400. The whole of the workings outside the dip and these sections are under water. One of the witnesses appearing before us—Mr. Russell—complains bitterly of the unskilful way in which the mine has been worked. He says the coal has been taken out where it should not have been touched, with the result that large portions of the coal have been lost. He further points out that, owing to the fierce competition which at one time raged, and the insistence of consumers to have only the best qualities of coal, much coal which is saleable to-day was quite unsaleable at the time the mine was so worked. There is no doubt that consumers are now glad to use the coal which a few years ago they would have rejected. Mr. Russell says, "The Brunner and Coalpit-heath Mines have both been spoilt through the management being in too big a hurry to get results. I think in no mine in New Zealand should they be allowed to take out a single pillar until they have reached the boundary of their lease." We think he is probably right in his accusation, and sound in his recommendation. Mr. Russell goes further, however, and charges the Grey Valley Coal Company with being actuated by sinister influences, and with having designedly ruined the Grey Valley mines in order to benefit the Westport mines. The colour given to this charge is derived from the fact that the Westport Coal Company and the Grey Valley Coal Company are practically the same proprietary, but the evidence we have taken goes far to disprove this charge of having designedly lost £100,000 of their shareholders' money, and of having deliberately put out unmarketable coal in order to close two out of the three Brunner mines, and thus create a monopoly for their Westport coal.

In March, 1896, a serious disaster occurred at the Brunner Mine, whereby sixty-five persons lost their lives; and in April, 1896, a Royal Commission was appointed to inquire into the causes thereof and, *inter alia*, to ascertain the nature and character of the working and general management of the mine, and whether the mine was well managed or not. That Commission consisted of Mr. District Judge Ward, Sir James Hector, Mr. Proud (a member of the present Commission), and Mr. T. Skelton. They reported that prior to, and at the date of the accident, the ventilation of the mine was ample, the machinery in perfect order and sufficient for all requirements, and the supply of timber, brattice-cloth, and other stores sufficient in quantity and quality, that the management of the mine was under the skilled control of competent officers, who discharged their duties with care and reliability, and that the inspection of the mine was efficient. We are of opinion that the same standard has since been maintained in these matters. Strong as is the condemnation of some of the residents in the locality as to the method of laying off the workings of the mine at the beginning, no allegations of *laches* on the part of the owners in matters of ventilation, or providing for the safety of the miners has been made, but we are of opinion that the ventilation of the rise-workings by natural means only is insufficient, and should be supplanted at once by artificial means. Ventilation by natural means is too liable to be affected by atmospheric and other conditions to be depended on in mines with any considerable extent of workings.

The Coalpit-heath Mine, about which a good deal has been said in the evidence attached, is an area of 777 acres, Section 231, Square 119, Grey Coal Reserve, and was originally leased to the Coalpit-heath Company in 1875, and transferred to the Westport Coal Company in 1887–8. A new lease was granted to the latter company in 1889 for a term of sixty-three years. The rental and output stipulated in the lease was as under:—First eight years, rent £250, output 24,000 tons; next twenty-eight years' rent £500, output 30,000 tons; last twenty-seven years' rent £750,

output 50,000 tons. During the first twenty-one years a royalty of 6d. per ton is provided, to be increased thereafter to 1s. per ton. The rent is not charged if the royalty exceeds it in amount. The total output to date has been 577,190 tons, and the rent and royalty received, approximately, £14,404. The mine is a continuation of the front part of the Brunner Mine or "old workings" to the dip. It was at one time worked by a shaft 280 ft. deep, but, on the amalgamation of the companies this shaft was abandoned, and the coal was hauled to the Brunner Mine stage by means of an incline. A rib of coal, varying from 60 ft. in front to 400 ft. near the fault, has been left along the boundary between the Coalpit-heath and Brunner Mines. This gives support to the hill, and formerly cut off all the drainage from the Brunner Mine, but now the water has been allowed to accumulate in the Coalpit-heath, which is flooded. From a large area the pillars along the side of the fault were worked from the Coalpit-heath, and serious cracks in the roof extended to the surface and admitted storm water. Sir J. Hector is the director of the New Zealand Geological Department, and is such a recognised authority in mining-science, that we do not hesitate to quote from the report he and his colleagues gave in 1891, and which, on this point, still states the situation correctly. They say, "The danger of a heavy slip from the hill, in consequence of the excavation of the coal, is not imminent so long as the pillars in the old Brunner Mine and in the southern part of the Coalpit-heath Mine and the said dividing rib of coal are left untouched. We are of opinion that great caution must be exercised, as there is evidence of extensive slips from the hill having taken place in former years higher up the river than the Brunner Mine."

Very shortly after the amalgamation the waters overcame the pumps and the mine was drowned out. The Coalpit-heath Mine represents a loss of some £100,000 in shareholders' capital. There appears to be some reason to believe that it would pay to open it out again in conjunction with the Brunner Mine, but not alone, unless satisfactory arrangements were made for using the Brunner Mine adit, and the mutual use of pumps. We have to take the opinions of a few individuals on this point, and cannot obtain knowledge at first hand; we therefore cannot speak with certainty upon it.

The *Wallsend* forms the third of the group gathered into the Grey Valley Coal Company (Limited). Its history is as disappointing as that of the Coalpit-heath. Originally leased and worked in 1875 by the Greymouth Coal Company, which fell into liquidation, it passed to a syndicate, which transferred it to the Westport Coal Company. We have not attempted to raise the veil which hangs over the operation of transfer and amalgamation, but we have no reason to think there was anything very unusual in the transaction. The exceptional circumstance, however, is the fact that the lease, which was for 1,000 acres, allowed the lessee to purchase the freehold of 150 acres at £5 an acre. This option was exercised, and 150 acres, through which the railway runs, was purchased, and is the freehold property of the Grey Valley Coal Company. On this freehold two shafts, 650 ft. deep, were sunk, and were furnished with most costly appliances. It is said that £120,000 was spent in equipping this mine, and that the whole of this large amount has been lost. The whole of the workings have been within the 150 acres freehold, and, with the exception of the portion under the Railway Reserve and under the river, are private property.

Mr. Joachim, the general manager of the Westport Coal Company, told us that the company bought the 150 acres for £750, and then put it into the pool out of which the Grey Valley Company was formed. He says the Westport Coal Company had spent in purchase-money and works, prior to the amalgamation, £80,000 on the property, but they did not spend any subsequently, for they closed the mine, dismantled the fine machinery, and allowed the workings to flood. The reason given for this is that the quality of coal in the Wallsend was inferior to the Brunner, and the coal was cut by faults on all sides. They found they could supply all the demands made upon them from the Brunner Mine, and therefore closed the Wallsend Mine and lost the £80,000 invested. It has been alleged that when a trial shipment of Wallsend coal was sent to Australia it was purposely made up of inferior coal, so as to ruin the reputation of the mine, but the charge is so grave and is so entirely unsupported by any proof that, even in the absence of denial, we could not treat it as having any weight; but the question was specifically put to Mr. Joachim, and we are satisfied that the management of the company were neither foolish enough nor base enough to do anything of the kind, and that the shipment was made up and sent in good faith, and proved a failure. It will be remembered that this was ten or twelve years ago, when the coal-market was better supplied than at present. The mine was recently sold at auction to a private individual for a small sum, and is still lying idle, but as it is private property the Government cannot interfere.

As to the statement of Mr. Wills that the company desired to impose a condition that all coal got from the mine by any purchaser should be sold out of New Zealand, we accept the denial of the company's officers and manager, and the statement is, on the face of it, incredible.

The *Tyneside Mine* is opposite the Brunner Mine, and it was first worked by Mr. J. Kilgour. It was acquired by the Greymouth Coal Company, and afterwards by the Grey Valley Coal Company. It really forms part of the Wallsend lease. The output was 18,398 tons, and it was closed after the amalgamation of the companies. It is said to be faulted to such an extent as to render working unprofitable.

The *Blackball Mine* is situated some seventeen miles from Greymouth and three miles from the Grey–Reefton Railway. It comprises a lease or leases of 1,914 acres in all, for a term of twenty-one years from January, 1886. The leases were originally held by Messrs. Kilgour and others, but were transferred in 1886 to the Blackball Company, who purchased the freehold from the Midland Railway Company, and we understand that the property has recently been sold to Sir E. Dawes, who represents an English company or syndicate.

Mr. Joseph Scott, the mine-manager, told us that the mine had been working for about seven years and a half, and the workings extended over about 60 acres. The mine is three miles in a straight line from the Ngahere Railway-station, on the northern side of the Grey River.

The coal is carried by buckets containing 8 cwt. each along an aerial tramway, three miles long, from the mine to the railway. The tramway is worked by a 20-horse-power steam-engine, and can put out 250 tons in eight hours. The cost of the tramway and outside works has been about £25,000, and it is said that 500 tons a day is the maximum to which the tramway can work. There are about eighty hands at present employed in and about the mine, which number will be nearly doubled when two shifts a day are again at work. The coal-getters receive 2s. 3d. per ton, and average about 12s. 3d. a day. The wages-men receive 8s. a day. The mine is well ventilated by means of a furnace in Blackball Creek drawing the air through the main tunnel.

Two fatal accidents have occurred—one from a fall of coal caused apparently by insufficient spragging, and the other from a jig-prop breaking and striking a man on the head.

A fire was discovered in Nos. 4 and 5 headings off the bottom level on the 30th November. A man named Green was found missing, and on search being made his body was recovered on the 2nd December, and the fire located. Green had been suffocated by the fumes of carbon-monoxide gas (white damp), and at considerable risk his body was found and brought out. A dam was built across the main tunnel and water brought in, which flooded the mine, and after a period of two months the fire was extinguished; but the mine was idle until the 31st January, when work was resumed.

The coal obtained is bituminous, and of good quality for steam and household purposes, but does not command as ready a sale for household use as Westport coal. The mine-owners charge at Ngahere—15s. for screened, 11s. for unscreened, and 8s. for slack or unsound nuts. The company have their own steamers to carry the coal from Greymouth. The railway-haulage from Ngahere is 2s. 6d. per ton.

The supply of coal seems to be promising, and as much as ten years' work is reckoned on from the coal in view. We inspected all the working-places, and are of the opinion that the inspection and management of the mine have been satisfactory.

Reefton Mines.

As we passed through Reefton, on our way from Westport to Greymouth, we held a sitting of the Commission at Reefton, and gathered a good deal of information as to the local coal-mines and coal-deposits, and subsequently we were induced by strong representations made to us to return from Greymouth to Reefton, and take further evidence.

The main object of the gentlemen who attended and gave evidence was avowedly to help to bring about the construction of a railway from Reefton down the Inangahua Valley; but, excellent as their purpose is, we feel it would be going outside the scope of our Commission to enter into this question. There is no doubt that a very large area of the Inangahua Valley is coal-bearing, and will be of immense value to the district, which appears to be slowly developing its great gold-bearing quartz reefs, and will require large supplies of coal. The County Chairman, Mr. Betts, wisely pointed out the necessity of preventing these coal-bearing areas passing out of the control of the Crown, and we strongly recommend that no land be sold until it be ascertained that it is not coal-bearing. The so-called coal-mines at Reefton are little more than holes in the hillside, from which small quantities of coal are taken for local use, and there are so many of these spread over the district that naturally the nearest to the place of demand are worked. Many of the quartz-mining companies have their own coal-mine or pit close to their engine-sites. It is impossible to obtain scientific working on such conditions, but there does not appear to be extra hazard to life or likelihood of loss of coal at present. The Inspector appears to diligently inspect the mines and advise those who are in charge.

The coal in the Inangahua district is of importance when considering that portion of our report which deals with the necessity for a systematic survey of the coal resources of the colony being undertaken.

Kaitangata and Castle Hill Mine.

This is an important mine, comprising an area of 1,100 acres of freehold land, employing 237 hands, and having produced in all 1,257,108 tons of coal. For the year ending December, 1900, its output was 112,455 tons. The mine forms part of the properties held by the New Zealand Coal and Oil Company (Limited), which has amalgamated the Kaitangata and Castle Hill Mines with the Orepuki and Eliotvale Mines. The capital of the company is £180,000, with £70,000 debenture capital, and the whole of the share capital is paid up. The Kaitangata Railway and Coal Company (Limited) was established as a company and registered in 1875, and lasted until 1898, when it was merged in the New Zealand Collieries, Railway, and Oil Syndicate, and this company was again changed to the present New Zealand Coal and Oil Company (Limited). The mines have been a profitable investment, yielding an average of 15 per cent. per annum. The properties held by the present company comprise 1,100 acres known as the Kaitangata Mine, which is leased from the freeholder, Mr. W. Aitcheson; 858 acres at Castle Hill, the fee-simple of which belongs to this company; 1,250 acres at Orepuki (Southland) leased from the Crown; and 2,800 acres at Eliotvate, the fee-simple of which belongs to the company.

Two of our number (Messrs. Proud and Lomas) made a very thorough examination of this mine, spending three days and part of the night therein. They also examined the Castle Hill Mine.

The condition of the workings at the time of our visit in March last was not altogether satisfactory, but so much good work has been done by the present manager, Mr. Broome, that we believe that ere long the mine will be in a proper condition. The ventilation is the chief deficiency at present, and either the connection with the Castle Hill Mine or an upcast shaft must be made. The connection was begun under the former manager, Mr. Straw, and completion was promised in April, 1900; but it was never finished, and Mr. Broome preferred to put in a shaft, but so far that has not been done. The shaft is, in our opinion, preferable, as it would give air by the shortest

way. The travelling-road for the men in case of accident was almost impassable, but immediate improvement was promised. There has been considerable friction between the owners and the men employed. The owners appear to have been somewhat harsh in one or two instances, and the men to have been unwise in their resentment. But an improved condition of matters appears to be now the case, and we are of opinion that no good purpose would be served by entering into bygone disputes, which, arising apparently over trifles, developed into graver troubles, and which are now, we hope, things of the past. We think that, prior to Mr. Green's appointment a Inspector and Mr. Broome's appointment as manager, both inspection and management were somewhat lax, and we cite this mine as an illustration of the necessity for the appointment of a Chief Inspector, with full power to investigate and take prompt action when requisite. We wish to draw attention to the report furnished by Mr. E. R. Green, Inspector of Mines, of his inspection on the 1st November, 1899. He says therein that "a shift of men are at work making ready to drive a pair of levels, to meet another pair being driven from the Castle Hill Mine for a new return airway and a second outlet." These levels, he then reports, are "being pushed on with all possible speed night and day at each end, and having 24 chains to go. Mr. Shore (the then manager) expects that it will be some time in April, 1900, before communication is established. The present return airway, which is also the travelling-way and second outlet, shows signs of deterioration, and it is not so passable as might reasonably be expected in a colliery employing two hundred men underground. The furnace is also showing signs of wear, so the completion of the new air-course and the utilisation of the splendid furnace and air-shaft in the Castle Hill Mine will be of material advantage to this colliery." At the time of our visit, more than a year after the date of Mr. Green's report, the connection was not established, nor was the air-shaft which the management stated they preferred to substitute for it even begun. The ventilation in the mine is consequently deficient, and, as there is a good deal of gas at times in some places therein, laxity in this respect is especially dangerous.

There appears to have been a good deal of laxity in giving out safety-lamps to men when gas has been found in their working-places. In the case of C. Penman and others they were allowed to carry naked lights up to a certain point in the mine, and no official was stationed there to prohibit them from going further. No attempt appears to have been made to prevent these and other workmen from carrying matches and pipes where saftey-lamps were used; and the fact that out of the six lamps used by Penman and his mates four were found in an unfit state for use shows either carelessness or incompetence on the part of the officer in charge. The practice of allowing naked lights to be used in the working-places adjoining those where gas has been discovered is, in our opinion, a source of danger that should, if possible, be averted. In every instance where such danger exists no naked lights ought to be used, and great caution exercised to prevent the men from carrying pipes or matches into such working-places.

In our opinion, greater care should have been exercised in properly fencing off the drive known as Duncan's heading, where gas was found during our inspection.

The present manager is to be commended for the way he is working the new parts of the mine in small sections, driving the headings quickly and working out the bords and pillars and sealing off, so as to prevent destruction to marketable coal.

In our opinion, the new air-shaft should be proceeded with at once, as it is next to impossible to put the present return airway into a thoroughly satisfactory condition.

The coal obtained is a brown coal of good quality for household purposes, but of not much value for steam. The price at Stirling Railway-station, which taps the company's private line, is 11s. to 14s. per ton for good household; nuts, 7s. 9d.; peas, 2s. 6d.; the dust is wasted. The bulk of this coal is sold at 12s. 6d. a ton. The price paid for hewing is in accordance with an award—viz., 3s. 6d. per ton, which includes the trucking of the coal. The wages-men are paid 10s. per diem.

We are of opinion that on the whole case made for the miners, who were ably represented by their secretary, Mr. Donaldson, they established these facts: (1.) That there are several fires now existing within the mine, one of which is alongside the main haulage-road, and, though bricked off, is evidently still of considerable power, and would, if not continuously and effectively watched, be a source of danger. (2.) That there is in the mine an amount of fire damp and black damp which, in the absence of better ventilation than exists at present, is a source of danger. (3.) That the means of escape in case of disaster have been insufficient for safety. These were the main charges made against the management, and they were, in our opinion, established; and, remembering the terrible explosion which occurred in this mine some twenty-two years ago, in which a large number of lives were lost, we think the Miners' Union were thoroughly justified in bringing them forward. The minor matters—as to arbitrary dismissal of men and boys, and the want of generous treatment in such matters as the miners' annual picnic—we have touched upon, but, for the reasons given, have not gone fully into.

The Castle Hill portion of the Kaitangata Mine we also thoroughly examined, and are able to report much more favourably on. The work has been well laid off, the ventilation and roads are good, the surface-works in excellent order. The conditions of labour and the quality of coal are the same as at Kaitangata Mine. The same danger exists here as in the latter mine from fires. At the time of our visit a fire was burning fiercely on the outcrop on the farther side of the hill in which the workings lie. From all indications the prospects of many years' work on the coal now in view are very good. There are a good many faults, but they are not of the nature to indicate a sudden loss of the seam altogether. The brown-coal measures in the South Island generally may be said to present more promise of quantity than the more valuable bituminous coal.

Allendale.

The property known as the Allendale Mine is situated at Shag Point, some miles from Palmerston South, and is owned by the Allendale Coal Company (Limited), which has a nominal capital of £4,000, divided into 4,000 shares of £1 each. As far as we could learn, the company is practically

in the hands of two gentlemen, Messrs. McIntosh and Allen, and the shares are held by members of their families. They possess a private railway from Bushy Park to the mine, a distance of two miles, and the expenditure on the mine and railway is estimated by them at about £10,000. The average output has been about 13,000 tons a year. It is sold at Bushy Park, the nearest Government railway-station, at from 10s. to 14s. per ton, according to quality—the nuts are sold at 8s. and the slack at 1s. per ton—but these prices have only been obtainable for the past year or so. The price paid for hewing varies from 3s. to as much as 10s. in bad places, and is said to average 6s. 9d. a ton, including trucking. There was an award some time ago fixing 3s. 6d. a ton for pillars, 4s. for levels, and 4s. 6d. for headings, exclusive of trucking. The shift-men are paid 10s. a day. Truckers are paid from 4s. to 8s. The mine has not been profitable until the last year, when a profit of something like £300 was made. There are about fifty men employed.

We were so impressed with the urgent necessity for immediate improvement in the condition of this mine that we submitted to your Excellency an interim report thereon, as follows:—

"We visited this mine on the 20th March last. We found a prevailing feeling of apprehension of danger on the part of the miners employed, but they declared that if they gave evidence they would lose their employment.

"We entered the mine by the only air-intake, and crawled along it, chiefly on our hands and knees, for a distance of between 9 and 10 chains. This roadway is made through ground where the pillars have been removed without leaving sufficient support, and the whole place is creeping. The props and timber overhead are breaking under the strain, the floor is coming up, and the sides are bulging. It has all the indications of a place that may close in at any moment. This intake leads into the main workings, which are on the dip from a main haulage-road, and are dependent entirely for ventilation upon the air-intake. In every working-face we visited the air was deficient, and up the north side it was still more seriously so. The Inspector of Mines, who was present, could not obtain any reading from his anemometer. Dangerous and unhealthy as this condition of things is, the peculiar and immediate danger arises from the strong possibility of the intake closing, and the air-current, poor as it is now, ceasing altogether, when the black damp, of which there is a considerable quantity in the mine, would probably overpower the men before they could make their escape.

"We were very unfavourably impressed with the condition of the whole mine. Broken sets of timber were not infrequent, the roof was ragged and apparently neglected, and there was altogether a want of care for the lives of the men employed. The quantity of timber set and in hand appeared to us to be insufficient for safety. The chief ground, however, for representing this now to your Excellency is the apprehension of some grave catastrophe through the want of proper ventilation. We strongly recommend that immediate steps be taken to compel the owners of the mine to put it in a condition of safety."

We are informed that an improvement has been now effected, but to what extent we are not aware. Owing to the condition of the ground, we are of opinion that frequent inspection should be made of this mine.

Shag Point Mine.

This mine is situated some two or three miles from the Allendale Mine, and its workings extend some distance under the sea. Its present output is about 20,000 tons a year, and it employs about seventy men all told. The men are paid under industrial agreement 5s. a ton for bords, 6s. for headings, and shift-men 10s. a day. The mine is worked from a shaft, and is well ventilated.

The coal is sold at the railway-siding close to the mine at 15s. for round coal, 6s. to 8s. for nuts; the slack is wasted. The coal is much used in Dunedin and elsewhere in the district, and is of about the same quality as Kaitangata and Allendale coal, and fetches much the same price. Unfortunately the prospects of the mine are not good; the coal appears to be pinching out, but some boring is being done with a view to finding more coal.

With the exception of the grips on the cages in the shaft, to which the attention of the manager has been called by the Inspector, we were well satisfied with the condition of the workings in this mine. We were unable to obtain the usual statistical information as to the ownership, share capital, and history of this property. The mine-manager was unable to supply it, and unfortunately we were unable to obtain the attendance of the secretary.

Homebush Mine.

This mine is situated on the freehold property of Mr. John Deans, at South Malvern, Canterbury. It is worked by the owner in conjunction with brick- and tile-works of considerable magnitude. The mine has been working for twenty-eight years, and during all that time has been under the management of Mr. Thomas Brown. It employs fourteen men in all, and turns out about 25 tons of coal a day, of which quantity 20 tons are used per week at the pottery-works. The balance of the coal is sold at the tip, which touches the railway, at 14s. per ton. The railway-haulage to Christchurch is 4s. 6d. a ton for forty-nine miles of railway. The seam is 7 ft. 6 in. to 8 ft. thick, and lies fairly evenly at dip of 1 in 3. The coal is a brown coal of good quality for household purposes and pottery-works. It is at present being worked on the rise, and the supply on that side is estimated to last three or four years at the present output. To work the dip side will necessitate pumping-gear, and somewhat more expensive appliances, but when worked with proper plant will enable a much larger output to be obtained at less cost. We found the workings in a thoroughly satisfactory state, with good ventilation and roads, but the tramway from the mine mouth to the tiphead, some two miles long, is in a rather dilapidated condition. The fire-clay used in the pottery is obtained from a separate seam a little further up the gully than the mine. There are said to be outcrops showing good coal in the neighbourhood of this mine which have

not been worked, and there are also several small coal-mines which are not at present working, and which we could not visit. There is a considerable demand for this coal in the neighbourhood, and a thoroughly efficient mine would be of great public utility.

Springfield Coal-mine.

This is the property of Mr. Horsley, and we visited it in April. The mine is said to be nearly exhausted, and no coal is sold, but the quantity raised is utilised in Mr. Horsley's pottery-works. It is a poor quality of coal, and has not yet been found in a payable seam. There is a great scarcity of coal in this neighbourhood, although there are many indications that there is an extensive area of coal-bearing land. Mr. Cloudesley, the hotelkeeper at Springfield, has put in a small drive at a point some 15 chains from his house, but so far without finding anything payable. Mr. Cloudesley told us of a 14 ft. seam of semi-bituminous coal at Broken River, one mile and a half from the Midland Railway-line, and said that he and two others hold a coal-mining lease, on which they have paid rent for twelve years, and on which they have done some boring and have prospected the outcrops. He speaks hopefully of this coal, but it must await the coming of the railway.

Orepuki.

The coal and oil-shale works here form part of the property held by the New Zealand Coal and Oil Company (Limited). The coal is not likely at present to be more than sufficient to supply the company's own requirements for the oil-works. A very complete and expensive plant has been erected for the purpose of extracting burning- and lubricating-oils and paraffine-wax from the shale. The manager (Mr. Dunlop) has succeeded in putting in position the extensive machinery, which appears to be complete in every detail. At the time of our visit the works were very nearly in working-order, and we believe that by the time this report reaches your Excellency, operations will be in full work. The coal-mine is under the charge of Mr. Straw, who appears to take all necessary care in preparing a somewhat difficult mine for work. A very large number of hands were employed in March last, but when the erection of the machinery is finished this number will be decreased. This mine should receive considerable attention from the Inspector, because of the difficulties of the ground. The management appear to be careful and provident. The expenditure on machinery and surface-works is said to exceed £80,000.

Reference to the return of mines working in the Southland District will show that coal is distributed over a large area, and there are a considerable number of pits or small mines open in which not more than five hands are employed. It is a serious question generally, whether great waste of coal does not occur from having a number of small mines at work. The temptation to obtain immediate results at the expense of the mine, as a whole, is frequently too great to be resisted, and the result is that from premature withdrawal of pillars, and superficial working generally, much coal will ultimately be lost.

Nightcaps.

The mine we visited at this locality is the property of the Nightcaps Coal Company (Limited), which has a capital of £24,000, all paid up in cash. The area consists of 500 acres of freehold owned by the company, and a lease of 14 or 15 acres from the Crown. The company commenced operations about the year 1880, and has put out between 250,000 and 300,000 tons of coal. It has not been a very remunerative investment, the shareholders only receiving three dividends of 6 per cent. each in twenty years. The company has a reserve fund of about £500. The coal is a brown pitch-coal, very similar to Kaitangata, Shag Point, and Allendale coal. The mine is close to a railway, and the coal is sold on the trucks at the tip for about 10s. 6d. a ton. The contract with the Railway Department was at 7s. 1d. a ton. The railway-haulage to Invercargill, forty-five miles distant, is 4s. 11d. a ton, and the retail price in Invercargill is £1 0s. 6d. to £1 1s. a ton. The nuts are sold at the pit's mouth at 6s. 6d., and the screenings are thrown away. The output averages from 25,000 to 30,000 tons a year, and between fifty and sixty men are employed. The price paid for hewing has been 3s. 6½d. to 3s. 10½d. a ton, according to the place worked in; but the question of rates of pay was coming before the Conciliation Board at the time of our visit. The men in the mine on shift-work are paid 9s. 6d. a day, and the surface-men 7s. 6d. a day. About £500 a month is distributed in wages. The mine itself appears to be well managed, though there has been at times a deficiency in ventilation. Efforts have been made to improve this defect, but do not appear to have been as successful as they ought to be in such a mine. A strict supervision should be maintained in this respect. The men themselves appear to be well satisfied now with the condition of the mine, and are content to let the question of pay come before the Conciliation Board. The prospects of the mine appear to be good, and a large quantity of coal is in view, which will last, it is estimated, for a good many years.

Abbotsford Mines.

We visited a group of small mines in this locality, and submit the following particulars concerning them:—

Mosgiel Mine.—Owners: Messrs. Nicol and Sneddon. Tenure: Leased from freeholder, A. Macgregor. Area: 400 acres. Output: 20 tons a day. Prices obtained: 5s. for steam; 10s. 6d. for round; 7s. for second-class round or household. Number of men employed: Ten. Rates of pay: 3s. to 4s. per ton for hewing; 9s. a day. Prospects: About five years' work at present output on coal in view; then prospecting must be done to find further supply. State of mine: Satisfactory.

Freeman's Colliery.—Owners: The Messrs. Green and the Messrs. Freeman. Tenure: Freehold, belonging to Mr. J. Freeman. Area: 1,000 acres. Output: About 245,000 tons in last

thirty years; about 700 to 800 tons a month at present; 9,000 tons for year 1900. Number of men employed: Average of twenty-two. Rate of pay: 9s. a day; no piecework. Prospects: Good; said to be plenty of coal. Condition of mine: Satisfactory.

Walton Park Colliery.—This is an expiring mine, in which the work done is that of robbing the pillars. The mine has been open thirty years, and consists of 67 acres of freehold. There is some trouble with the ventilation, and some black damp. It is said, however, that there are four or five years' work still left, with an output of 10,000 to 12,000 tons a year. Most of the mine is under water, and nearly two-thirds of the coal in the mine has been lost through flooding. The coal is fair-quality brown coal, and fetches, at the railway, from 12s. for household to 6s. for steam. The rate of hewing is 3s. 8d. per ton for round coal; 6d. for engine-coal; 5d. for screenings; and 3d. for dross. Besides water in the mine there are also several fires sealed off. There are fourteen men employed in all.

Jubilee Colliery.—Owners: Messrs. Howarth and Loudon. Tenure: Leased from freeholder, J. Howarth. Area: 138 acres. Output: 10,000 tons per annum. Prices obtained: 4s. for household; 2s. 4d. to 3s. for steam per ton at mine-mouth; 12s. for best in Dunedin. Number of men: Fourteen in all.

Mokau Coal-mines.

We visited these mines in April, travelling overland from New Plymouth to the mouth of the Mokau River, and proceeding twenty-two miles up river in a steam-launch. This river, though somewhat narrow, is navigable for vessels drawing from 6 ft. to 8 ft., according to tides and rainfall; but in order to maintain this it is necessary to strictly preserve the natural growth upon the banks. Already in one place where the bank has been cleared of timber depravation has taken place, and a shoal formed. No time should be lost in taking measures to preserve the vegetation on the banks, and thus preserve the banks themselves.

The area of the most importance at present from a coal-mining point of view is the Maungapapa Block B, containing 4,240 acres. It is being worked by Mr. G. A. Stubbs, under an arrangement with Messrs. Robertson and Vickery, of Sydney, who in some way represent the Taranaki Collieries (Limited), a company not at present registered in New Zealand, but possessing, it is stated, a very large share capital.

In company with Mr. Stubbs we inspected the mine-workings, and were struck with the uniformity of the strata and the excellence of the roof and floor. The main drive is driven 22 chains from the entrance, and is carried towards the heart of the hill, and the coal shows evenly in all the working-faces. The roof is particularly good, and requires very little timber; but we are inclined to think that there has not been sufficient care taken in providing the small quantity of timber necessary for safety. Mr. Stubbs recognised this danger, and undertook to provide against it in future.

The present output is about 100 tons per week, and there are seventeen men employed—seven men actually on the face, and the remainder on road- and surface-work. From 20,000 to 30,000 tons have been taken out altogether. The pieceworkers are paid from 2s. 9d. a ton to 3s. 4d., according to the thickness of the band of stone or impure fireclay which lies between the two seams of coal. The pieceworkers average about 10s. a day, and the wages-men are paid 9s. per day.

The coal itself is of very good quality for household purposes, and makes a fair steam-coal where great draught is not required. The under-seam averages 3 ft. 8 in., and the upper seam 3 ft. 5 in. It is carried on the railways as a brown coal, and pays a lower rate than that charged for bituminous coal. The lower coal is said to be best suited for household purposes, and the upper seam for steam. Dr. Robertson, in his report, describes the upper seam as "pitch-black, lustrous, with semi-conchoidal fracture, working in large lumps, and does not fall on exposure to air"; he says it is "a very superior lignite." The lower seam he describes as a "bright bituminous coal of superior quality; both coals ignite easily, give little smoke, a bright flame, and a small amount of white pulverised ash." He ranks it next below Westport coal. So far as we have been able to judge, this appears to us to be a fair and true description. Nothing is certain in coal-mining, but to all appearances there are good indications that the seam is of great extent, and that large quantities of easily worked coal are obtainable from this mine. It is a very noticeable feature that in a drive of 22 chains into the hill no fault has been met with, and the only trace of faulty ground is a downthrow of a few inches. In New Zealand coal-mining this is a remarkable condition of things, and points to solidity and continuity.

With the exception of the disregard for timbering, the workings are in excellent condition. We deemed it our duty to markedly call the attention of the mine-manager and lessee to the want of timber, and especially to a face of undercut coal fully 15 ft. wide which was not supported by any sprag. The miners themselves seemed to consider that they were quite safe in such a good mine; but, as we have before pointed out, such carelessness usually brings about an accident. We believe that the evil will be avoided for the future. The ventilation and roads were all that could be desired, but the pillars have, under former proprietors, been left too small, and care will have to be exercised to prevent danger from this cause; and in any event the coal in these small pillars will be found deteriorated from crushing and the admixture of dirt beneath.

The coal from this mine is taken from the mine-mouth, which lies a very short distance from the river-bank, to a tip, from which it is emptied into vessels lying in the river, and is then taken down the river. Sometimes a small steamer is used, but generally a scow containing 110 tons is filled, and is towed down the river and to sea. The river is infested with snags, which are a constant source of danger, and it is estimated that an expenditure of £1,000 is required to clear these snags away. The bar at Mokau Heads is rather a difficult one to work, and at present only vessels of not more than 8 ft. draught at the most can cross it. As the scows have to be towed over the Mokau bar, and over the bar at Waitara, where most of the coal is sent, it follows that practically it takes both a sailer and a steamer to take a cargo from Mokau to Waitara; but the

steamer can carry perhaps 40 tons of coal or general cargo to that extent, and perchance some passengers. The cost of taking coal from the mine to Waitara is reckoned at 8s. per ton, *plus* 1s. a ton wharfage at Waitara. The coal is sold at Waitara at £1 a ton on the railway-trucks for unscreened, and £1 2s. 6d. for screened. The cost of the coal at the tiphead is reckoned at 8s. 6d. per ton, and this is high, considering the simplicity with which the coal is taken out. The small output at Mokau, and the primitive appliances in use, of course add to the cost per ton of the coal. If a trade is developed and suitable vessels are provided, no doubt the coal can be produced at a very much reduced cost. Mr. Stubbs says that a steamer specially designed for the river and bar is being built, and will be sent into the trade.

A few chains above this mine is situated a coal-mine which is locally known as the Upper or Fernside Mine, but which at present is not being worked. We inspected all the working-places therein, and again noticed the favourable indications as to quantity and solidity. With means of transit the value of the Mokau Mines must be very great, but to what extent it would be advisable to incur large expense on river and harbour works depends in some measure upon how the supply from other sources in this colony keeps up, and the state of the coal-market.

The Taranaki Collieries Company (Limited) have acquired in all three areas—viz., the Mungoira Block, 2,984 acres; Mangapapa Block A, 8,174 acres; Mangapapa Block B, 4,240 acres: in all, 15,398 acres, occupying a frontage to the northern bank of the Mokau River of forty miles. They appear to have acquired the right to a lease from the Native owners for a term of sixty years on very favourable conditions, but we are not able to speak with certainty as to their tenure. There is generally a good deal of obscurity over leases from Native owners.

There appears to be little doubt as to there being on both sides of the Mokau River coal-measures of considerable extent, which will be of great value when the need for their development arises. We were not able to visit various places mentioned to us as those in which outcrops and indications of coal exist. The country is almost uninhabited; there are no roads; and until recently it was practically an untrodden land. It is a country possessing peculiarly interesting features and beauties, and were it not for the eminently practical subject of our Commission we might venture to make some observations thereon.

The mines now in the possession of the Taranaki Collieries Company will no doubt be now worked on a better and more extensive system than hitherto. They will probably supply the market of Taranaki, and probably as far south as Wanganui; but, although there has not been much apparent need so far for frequent inspection, we are of opinion that regular visits should be made not only by the Coal-mines Inspector, but by those officers whose duty it is to see that the forests are not destroyed by fire, or rivers rendered unnavigable by the careless or ignorant destruction of their banks.

The Hon. W. T. Jennings, M.L.C., gave us information regarding other known seams of coal on the Mokau River. On a block known as No. 1 Manga-awakino, fifteen miles up the river from the heads, and below the Mangapapa and Mungoira Blocks, there are reported to be numerous seams of large size. The property which has attained such wide advertisement through the action of Mr Joshua Jones and others is situated on the river, but we were unable to visit it, and could have gained no information of value in this inquiry had we done so. Mr. Jennings stated that the retail price of Mokau coal at New Plymouth was £1 14s. a ton.

Reports from Mr. W. Blanch Brain, mining engineer, who examined the area No. 1 Block Manga-awakino in 1897, were put before us. They speak most highly of the quantity of coal, the absence of physical difficulties, and the conformity of the strata. Messrs. A. G. French, M.E., and Mr. George Wilson, late Inspecting Engineer for the New Zealand Government Mining Department, report most favourably of the quantity and quality of the coal, and the absence of engineering difficulties in working. The means of transit is the chief problem. It must be some, and possibly many, years before a railway can approach it, and the water-carriage has the difficulties and dangers we have described.

Puponga and Pakawau.

We visited these coalfields in May, and first directed our attention to Puponga, and especially to the leases taken up in the names of Mr. Joseph and Mrs. Annie Taylor. Puponga lies on the eastern shore of Cape Farewell, about fourteen miles from Collingwood, and is protected by the long sand-spit which runs almost due east from the point of Cape Farewell. There is no navigable river or inlet, but the shore is so well protected that vessels can approach in safety, and a wharf could be erected at which vessels might load. The flimsy structure now existing is evidence of the safety of the place from heavy seas. About a mile and a half to two miles by the nearest approach, the leaseholds of Mr. and Mrs. Taylor are situated. They comprise 100 acres in the name of Mr. Taylor, 100 acres in Mrs. Taylor's name, and 200 acres applied for by Mr. Taylor, which last has been recommended by the Warden, but not yet issued.

A company has been formed in England, with a nominal capital of £70,000, and arrangements made for the immediate raising of £12,000 for the purpose of opening the mine. The evidence of Mr. Taylor discloses the financial arrangements made between himself and the company, and we deem it unnecessary to comment on them. The Taylors will convey all their interest in the leaseholds to the company, and will receive an equivalent in shares and some cash. There has been some prospecting done on the property, but very little actual mining; a wooden tramway three miles long has been laid down to the foreshore, and it is explained that this was a cheap temporary means of getting some coals out to market, and carrying the necessary timber and material for opening the mine, and its place is to be at once supplied by a good iron tramway, on which a small locomotive can work. Two small sailing-vessels or scows have been obtained, but so far, owing to the difficulty of getting the coal from the mine on board a vessel, it has been shipped at a loss. The price at Nelson has been from £1 4s. to £1 10s. per ton, and £1 8s. at Collingwood. It has been sold at Puponga at 16s. f.o.b., and as much as 6s. a ton freight from Puponga to Nelson

has been paid. The output so far has been so small that it is impossible to gather from a statement of cost hitherto what the price for large quantities would be. Mr. Taylor says that the tramway and new pier will be finished before the end of the year.

We entered three short drives, which have been put in on a seam varying from 7 ft. 6 in. to, say, 9 ft.; the longest of these has been driven 400 ft. on coal. The coal appears to be of very good quality for household purposes, and not unsuited for steam. As a steam-coal it would rank as somewhat inferior to Grey or Westport, but in the absence of a better quality at a low price would be valuable for steam purposes. There are only a few men employed in coal-getting at present, and were the quantity ascertained it would be quite right to defer mining until the means of transit are completed. This is a dilemma in which mine-owners frequently find themselves. To drive far on the coal without being able to profitably sell the output means great loss, and to first provide railway-carriage and means of loading, involves the risk of finding all such expenditure wasted if the quantity of coal in the mine turns out to be insufficient.

Between Mr. Taylor, who professes great expert knowledge on the subject, and Mr. A. McKay, F.G.S., Government Geologist, there appears to be a sharp difference of opinion as to the conformity of the seam and the quantity of coal likely to be obtained. We beg to refer your Excellency to Mr. McKay's report (1900, C.–6) on the Puponga Coalfields, and to say that, so far as we have been able to judge, Mr. McKay's conclusions are probably the sounder of the two.

It is greatly to be desired that this coalfield should prove a source of supply, not only to Nelson, but also the country round that city, and every possible consideration should be shown to those who are endeavouring to establish a coal-supply within the area of Golden Bay. Care should, however, be taken that while allowing each person or company interested access to the foreshore and anchorage, no concession should be granted that would prejudice the right of all to such access.

A. Peart's Leasehold.—Adjoining Taylors' leases is the lease held by the Cape Coal Prospecting Company in the name of Alfred Peart. The area is 400 acres, and it lies to the north and west of the Taylor leases, and is believed to take the coal to the dip of Taylors' seam; but, although some £400 has been spent, the party have not been so far successful in striking the seam. A shaft 66 ft. deep has been sunk, passing through four small seams, the thickest of which is said to be 2 ft. Sixteen shafts have been sunk on this area, but without success. Efforts are now being made to provide new capital and continue the operations. The Puponga field appears to be especially one in which no speculations as to what is beneath the surface can be of any use, and therefore one in which the pick alone can solve the question.

Pakawau.—We also visited the mine at this place, which is some seven miles south of Puponga. There is an area of 39 acres actually granted, and the owners—Messrs. Caldwell Brothers—have applied for another 100 acres. The mine has been open five or six years, but in a very intermittent sort of way. Eight men and a boy are at present employed on the coal, and three truckers, but we understood that this number has not been employed regularly. The output rose to 400 tons during April, but this was an exceptional output. The drive has been carried in 150 ft., and the mine is worked on the usual pillar- and- bord system. The coal is put on board vessels at a small wharf erected on the foreshore of the bay, and is charged for f.o.b.—15s. for screened, and 10s. for nuts. The slack is washed away at the tiphead and sent into the creek. The mine is a mile and a quarter from the wharf, and there is a good iron tramway. The width of the seam is from 2 ft. 6 in. to 4 ft., and there are two bands of clayey pug running through the seam, which detracts from its value. The coal is a semi-bituminous coal, and answers very well for household purposes; its place as a steam-coal depends upon the supply of better coal for steam purposes. A few years ago it would not be used; a few years hence it may be gladly taken.

Mines near Nelson City.

We took evidence respecting the mine known as the Enner Glynn Mine, situated some four miles from Nelson, on the freehold property of Mr. Alexander O'Brien, and one of our number (Mr. Proud) visited it. This mine produced a lignite of rather low quality, and the seam being nearly vertical, and the method of working it unscientific, difficulties occurred, culminating in a fire taking place, and the shaft and workings being flooded. The whole method of working appears to have been as primitive as possible, and the statements made to us concerning it are conflicting. If the coal is as the owner of the freehold asserts, it is extraordinary that he does not make use of the wealth nature has so bountifully given him. If the quality and quantity are as some statements made to us declare it to be, his inaction so far is explainable. We could not enter the workings, and we are not sufficiently satisfied with the evidence procurable to make any further observations upon it.

We also visited a bore which is being put down at Brightwater, 14½ miles from Nelson City. We can only report that there are indications of coal, but, though a depth of 113 ft. has been attained, there is nothing at present on which any judgment can be formed. The operations of those engaged in boring appear to be conducted with considerable skill, and though the appliances are simple and, indeed, primitive in appearance, they are in reality ingenious and effective.

The coal-supply of the City of Nelson is apparently worked upon lines which would appear strange elsewhere, but which are accepted by the residents to a large extent, as the natural outcome of their desire to keep their trade to their own people. It appears that, owing to agreements between shipowners, no vessels other than those of a certain line can take coal to Nelson from either the West Coast or Golden Bay Mines; that the Nelson City Gasworks pay £1 8s. 6d. for screened Westport, and £1 1s. for slack; that the same party has been the contractor for many years past, and that no one else apparently can compete. The same thing exists with regard to Pakawau and Puponga coal, which can only be purchased at Nelson Wharf at from £1 4s. to £1 6s. per ton.

GENERAL

With regard to the coal areas at Golden Bay, we recommend that great care be taken to prevent leases being taken up for merely speculative purposes, and that the foreshore rights to the bay be strictly preserved for the use of the public.

The Coal-mines Act, with its amendments and regulations, appear to work satisfactorily on the whole, and we were unable to obtain any tangible suggestion for their amendment or alteration, except those contained in the following letter from the Trades and Labour Councils Conference. Should our recommendations thereon be adopted a slight alteration will be required in the Act. Some of our other recommendations would probably require a substantive Act of the Legislature :—

"Wellington Trades and Labour Council,
Trades Hall, Wellington, 14th May, 1901.

"Sir,—

"I have the honour, by direction of the Trades and Labour Councils Conference, held recently in Dunedin, to forward, for the consideration of the Commission which has been set up to inquire into the working of the coal-mines of New Zealand, the following recommendations :—

"(1.) That section 33, subsection (46), of 'The Coal-mines Act, 1891,' be amended by striking out after the words 'in a mine may' the words 'at their own cost,' and substituting in lieu thereof the words 'at the cost of the Government.'

"(2.) That a provision be inserted in the Coal-mines Act compelling mine-owners to conduct a sufficient quantity of pure air, by brattice or otherwise, to within 15 ft. of every working-face.

"(3.) That the Coal-mines Act be amended so as to compel mine-owners to provide travelling-roads for the workmen as near as consistent to the main entrance to the mine.

"(4.) That in all main air-courses in coal-mines where stoppings are required, such stoppings shall be made of brick or crib-logging.

"(5.) That in all cases where safety-lamps are used in coal-mines a 'tester' be provided for the purpose of testing all lamps before they are allowed to be taken into the mine.

"(6.) And that no person be allowed to have charge of a coal-face unless he has had not less than two years' previous experience in a coal-mine.

"I might state that the whole of these recommendations are made at the instance of the representatives of the Coal-miners' Union of the west coast of the South Island, who were present at the Conference. As each of the recommendations are in the direction of minimising as far as possible, the danger which exists in the working of all coal-mines, and have for their sole object the protection and welfare of men working in the mines, the Conference felt confident that your Commission would give the several matters mentioned due consideration.

"I remain, &c.,
"A. H. Cooper,
"Conference Secretary.

"W. R. Haselden, Esq.,
"Chairman, Royal Commission on Coal-mines."

To which we returned the following reply :—

"Coal-mines Commission, 15th May, 1901.

"Sir,—

"I have the honour to acknowledge the receipt of your letter of the 14th instant, covering recommendations made by the Trades and Labour Councils Conference recently held in Dunedin, with a view to obtaining certain amendments in the law relating to coal-mines.

"The Commissioners are very pleased to obtain these representations from the Conference, and will give them their earnest and attentive consideration.

"I have, &c.,
"W. R. Haselden, Chairman.

"Mr. A. H. Cooper, Secretary, Trades and Labour
Councils Conference, Trades Hall, Wellington."

Dealing with the recommendations seriatim, we beg to report as follows :—

(1.) The proposed alterations would be contrary to the interests of the employed, and would in a great measure deprive them of the safeguard afforded by the appointment and payment by themselves of two check inspectors. If these inspectors were paid by the Government the men would lose most of the control they now have over them, and the check inspectors themselves would be looked upon in much the same way as the present Government Inspectors. The cost of paying the check inspectors for their one or two days' work a month is very trifling when divided among a body of men, and the employés, in our opinion, would be unwise to have the alteration asked for.

(2.) Section 33 of the Coal-mines Act, subsection (1), provides that an adequate amount of ventilation, that is not less than 100 cubic feet of pure air per minute for each person and animal, shall sweep undiminished along the airway through each working-place. Properly interpreted and enforced, we think this provision is sufficient. A rigid rule of bringing the air to within 15 ft. of every working-face would be difficult to comply with in every case The matter really falls under the requirement of stricter supervision and enforcement of the law than has been always the case hitherto, and we think that with strict enforcement the present law is sufficient.

(3.) If this recommendation means that a separate and distinct road be provided solely for the use of the workmen in going to and from their work, we think that it would be impossible to enforce. Section 40 of the Act provides that, within a year after commencing the working of bords, stalls, or long-wall workings in any mine, there shall be made and completed at least two separate and distinct shafts or outlets to the surface from such mine intercommunicating with each other,

so that such shafts or outlets shall afford a separate means of ingress or egress available to persons employed in such mine. We think this provision is, if properly enforced, sufficient. In effect, this recommendation is a repetition of the complaint in the Cardiff Mine inquiry, that there were not two travelling-roads available at all times to the miners, and we dealt with it at page five of this report.

(4.) We are of opinion that this rule would add to the safety of the men working in the mine, for, in the event of an explosion in any section of a mine, stoppings made of boards are too weak to resist the pressure, and would be easily blown out, and the chance of the men escaping would be diminished.

(5.) We think that a "tester" should be provided for in the Act and regulations. There appears to be little doubt that in some instances lamps have been given out in an unfit condition, and an unnecessary risk incurred.

(6.) We are of opinion that this is a reasonable stipulation, and would tend to the safety of those employed.

Although we have not been able to report favourably on all these recommendations from the Trades and Labour Councils Conference, it is satisfactory to receive them, and to know that the points relating to the protection and welfare of the men employed in coal-mines have been intelligently debated and resolved on, and it is a fair inference to make that there are no other substantial questions which they wish dealt with. Viewing the communication from this representative body of men as of considerable importance, we have embodied the full text thereof in this report.

General Recommendations.

We recommend the appointment of a Chief Inspector of Coal-mines for the colony, who should be a man of high qualification, possessing experience both in New Zealand and Britain or America. Each District Inspector should furnish to the Chief Inspector a monthly report showing the work done during the previous month, and the condition of each mine inspected. In case of any difficulty between the Inspector and the mine-owners the Chief Inspector should personally visit the mine, and special powers should be given the Chief Inspector to act promptly and effectively in order to remedy what may be amiss. Under the present system the Inspectors report annually to the Minister of Mines, and this has led to matters being allowed to stand over which ought to have been dealt with at once. The districts placed under each Inspector are, in our opinion, too large, and there are too many gold- and coal-mines in each district for the existing staff to satisfactorily deal with. Additional Inspectors should be appointed, and the mines should be inspected more frequently than has heretofore been the practice. The provisions of the Acts and regulations should be strictly carried out, and the forfeiture clauses enforced where mines are either unworked for any considerable periods or are neglected.

Survey.—We recommend a resumption of the surveys formerly made of coal-bearing areas. The present surveys and estimates should be corrected by the information since obtained from actual working; and lands hitherto unsurveyed, but which are believed to contain coal, should be carefully and thoroughly surveyed. The theory that many outcrops on an area justify an estimate based upon the idea that the seams run continuously through the area on which the outcrops appear should be officially tested, and if proved fallacious, as we believe it to be, should be abandoned. In short, a determined effort should be made to take stock of our coal resources, and let the people of the colony know how far they can rely upon a coal-supply for the next generation.

Sale of Coal-bearing Lands.—Immediate efforts should be made to ascertain where coal-bearing areas are situated on Crown lands, and such lands should not be sold. It is true that under certain conditions freehold lands may be resumed for coal-mining purposes, but the compensation to be paid to the owner generally prevents such resumption.

Reservation of Coal Areas.—We recommend to the consideration of your Excellency's Advisers the sound policy of reserving to the State the coal areas not now alienated or worked. The establishment of a coal-mine owned and worked by the State has been much pressed upon us by many witnesses, but it is a question involving so many political considerations that we feel it is one eminently beyond our functions, and is only to be dealt with and decided by Parliament. But in the meantime the acquisition by individuals of areas which may be required for the people generally should be prevented.

Haulage-rates on Railway.—We were much pressed to recommend a differential rate on the various classes of coal carried. It was urged that slack and nuts should be carried at a less rate than round coal. We regret we are unable to make any recommendation thereon. It is a matter really outside the scope of our Commission, and is one relating to railway administration. We are aware that the experiment of charging lesser rates for the lower classes of coal was made, and was found not to work satisfactorily. We commend the subject to the serious consideration of the authorities.

State Distribution of Coal.—Much evidence was offered to us, which we felt unable as well as unwilling to reject, on the subject of the cost of coal to the consumer, as compared with the cost of production. The case of the Westport Company's coal—which is produced at 7s. 10d. a ton in the railway-trucks at Waimangaroa, and is retailed in Wellington at £1 15s. a ton net—is a striking example of the cost of distribution. Mokau coal, produced at the mine at 8s. 6d., is sold in New Plymouth retail at £1 14s. per ton. The same proportion practically exists throughout the colony. We believe that if the State, which now buys a large quantity of coal at a moderate price, would sell such coal at a fair price to consumers the grievance now complained of would vanish, and the result would be that, while the State would fix the fair retail price of coal, the present dealers would sell at such price and would not be injured.

The large quantity of evidence taken necessitated some delay in the transcription of the shorthand notes, and we have, in preparing our report, had to rely in a great measure upon our own notes. When quotations are made from witnesses' evidence they are taken from our note of what the witness said, and not from the reporter's shorthand note.

We append a return showing the official statistics of workings in coal-mines for 1900.

Given under our hands and seals, this 31st day of May, 1901, at Wellington, New Zealand.

(L.S.) W. R. HASELDEN, Chairman.
(L.S.) JOSEPH PROUD.
(L.S.) JOHN LOMAS.

APPENDIX I.

Statistics of Workings in Coal-mines, 1900.

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Number of Shafts.	Dimensions of Shafts.		Output delivered by	Output for 1900.			Approximate Total Output to 31st December, 1899.	Approximate Total Output to 31st December, 1900.	Number of Men ordinarily employed.			Power used for drawing Mineral.	Pumps.			Means of Ventilation.	Date of Inspector's Last Visit.
										Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.	Total.			Above.	Below.	Total.		Stroke.	Size of Barrel.	Height of Column.		
NORTH ISLAND.																										
KAWAKAWA DISTRICT.													Tons.	Tons.	Tons.	Tons.	Tons.									
Kawakawa (late New Bay of Islands Company)	Culley, John ..	6½	semi-bitum.	1	4′	4′	1 in 8	bord and pillar	4	6′ x 4′ 4′ x 3′	165′	adit	3,649	..	3,649	52,742	56,391	2	5	7	horse	..	..	..	natural	15/9/00
HIKURANGI DISTRICT.																										
Hikurangi Coal Company ..	Moody, T. P. ..	7	ditto	1	7′ to 12′	7′ to 10′	1 in 8	ditto	7	6′ x 5′	198′	incline-plane adit	38,572	..	38,572	158,711	197,283	6	44	50	steam-engine	2 hand-pumps	..	..	„	13/9/00
Hikurangi Colliery ..	Kerr, George ..	4	„	1	10′	10′	irregular	„	1	6′ x 8′	..	adit	11,119	..	11,119	30,077	41,196	4	14	18	hand	..	..	..	„	13/9/00
WHANGAREI DISTRICT.																										
Kamo New	McDonald, Donald	6 1/12	„	1	8′	7′	ditto	„	1	6′ x 4′	170′	ditto	371	100	471	8,902	9,373	..	3	3	ditto	..	..	..	„	20/12/00
NGUNGURU DISTRICT.																										
Ngunguru Mine	Taylor, A. H. ..	8	„	1	3′ to 7′	3′ to 7′	„	„	2	4′ x 2′ 7′ x 5′	600′ 1,600′	„	14,592	..	14,592	100,546	115,138	11	27	38	steam-engine & horse	6½″	2½″	35′	„	19/9/00
Kiripaka Mine	Climo, George ..	2	„	1	20′	7′ to 14′	1 in 9	„	1	7′ x 5′	363′	„	11,276	..	11,276	1,609	12,885	3	7	10	hand	..	..	..	..	19/9/00
WAIKATO DISTRICT.																										
Taupiri Coal Mines Company—																										
Taupiri Extended Section..	Wight, E. S. ..	14	brown	1	20′ to 40′	7′ to 20′	1 in 10	bord and pillar	2	10′diam.	166′ 209′	shaft	21,373	369	21,742	611,912	633,654	13	34	47	steam-engine	16½″ 14″ 20″	7″ 5″ 5″	170′ .. 204′	fan natural assisted by exhaust steam	12/9/00
Taupiri Reserve Section ..	„	14	„	1	20′ to 24′	7′ to 18′	1 in 7	ditto	2	7′ 10′ 6″	50′ 1,782′	incline-plane adit	17,831	790	18,621	182,821	201,442	11	44	55	„	14″ 12″	7″ 6″	260′ 40′	„	12/9/00
Ralph's Taupiri Section ..	„	3	„	1	30′ to 60′	7′ to 24′	1 in 10	„	2	9′ 6″ x 5′ 8′ 6″ dia.	190′ 145′	shaft	36,466	362	36,828	42,393	79,221	19	67	86	„	12″ 24″	6″ 8″	132′ 150′	„	12/9/00
MOKAU DISTRICT.																										
Mokau Mine	Cherrie, Robert ..	16	„	1	7′ 6″	7′ 6″	1 in 36	„	1	6′ x 6′	990′	adit	2,218	..	2,218	19,591	21,809	3	8	11	hand	..	..	..	natural	29/10/00
Fernside Mine	Lobb, Joseph ..	3	„	1	6′	6′	1 in 12	„	2	7′ x 5′ 6′ x 4′	495′	„	1,215	..	1,215	2,050½	3,265½	..	4	4		..	..	..	„	29/10/00

COLLINGWOOD DISTRICT.																											
Pakawau	Walker, James ..	6	bitum.	1	3′ 10″	all	1 in 4	bord and pillar	..	5′ x 5′	150′	adit	743	696	1,439	1,726	3,165	2	10	12	horse	..	..	..	natural	17/8/00
Puponga	Taylor, Joseph ..	5	″	4	..	″	1 in 4	ditto	..	..	..	″	200	100	300	200	500	8	10	18	″	..	..	..	″	18/8/00
WESTPORT DISTRICT.																											
Mokihinui	Gibson, John ..	..	″	1	9′ to 35′	9′ to 26′	1 in 6	″	2	6′ x 9′	528′	″	8,592	1,500	10,092	43,074	53,166	11	53	64	steam & horse	12″	8″	77′	″	19/12/00
Millerton	Green, John ..	9	″	1	4′ to 20′	12′	variable	″	3	10′ x 6′	33 chains 38 ″	incline-plane	131,607	26,522	158,129	292,469	450,598	69	174	243	gravity	12″	4″	140′	fans	22/12/00
Coalbrookdale	Dunn, W. ...	20	″	2	4′ to 20′	all	″	″	2	8′ x 8′	8,146′	adit						99	277	376	steam	12″	6″	100′	″	31/12/00
Iron-Bridge	Sowerby, H. ..	9	″	2	4′ to 20′	″	″	″	2	9′ x 5′ 8′ x 6′	263 ch. 9,048′	″	171,995	39,362	211,357	2,666,862	2,878,219	..	..	..	and compressed air	12″ 7″	5″ 6″	100′ 30′	″ ..	29/12/00
THREE CHANNEL FLAT.																											
Cocksparrow	Cadigan, D. ..	6	glance	1	1′ 6″	″	vertical	tunnel	..	5′6″x4′6″	450′	″	568	..	568	..	568	..	2	2	hand	..	..	..	..	11/9/00
REEFTON DISTRICT.																											
Bourke's Creek	Davis, W. ..	3	semi-bitum.	1	14′	12′	varies	bord and pillar	2	9′ x 9′	360′	″	1,197	..	1,197	1,269	2,466	2	4	6	horse	..	..	..	natural	21/11/00
Murray Creek	Betts, Lewis ..	21	ditto	1	14′	all	″	open face	..	..	..	..	443	..	443	9,622	10,065	1	..	1	hand	..	..	..	..	21/11/00
Phœnix	Fox, John ..	9	″	2	20′ & 30′	9′	1 in 6	bord and pillar	2	8′ x 6′	150′	adit	902	..	902	13,996	14,898	5	3	8	″	..	..	..	natural	21/11/00
New Inkerman	Jamieson, J. ..	3	″	1	5′	all	1 in 3	sloping	1	6′6″x4′6″	70′	″	405	..	405	749	1,154	..	1	1	″	..	..	..	″	20/11/00
Lankey's Creek	Lamberton, W. ..	18	″	1	5′	4′ 6″	level	tunnel	1	4′ x 6′	250′	″	176	..	176	7,956	8,132	..	1	1	″	..	..	..	..	20/11/00
Progress New Mine ..	Cochrane, T. ..	2½	″	1	6′	all	30°	bord and pillar	2	11′ x 6′	300′	″	1,196	..	1,196	8,633	9,829	2	2	4	″	..	..	..	..	22/11/00
Breens	Loughnan, H. ..	8	″	2	6′	″	vertical	tunnel	1	9′ x 6′	100′	″	60	..	60	1,553	1,613	..	1	1	″	..	..	..	..	22/11/00
GREYMOUTH DISTRICT.																											
Blackball	Leitch, James ..	10	bitum.	2	17′	15′	1 in 5	bord and pillar	..	9′ x 6′	1,232′	″	79,716	2,800	82,516	274,047	356,563	34	141	175	steam	..	..	..	furnace	25/10/00
Brunner Dip Mine	Coulthard, J. ..	36	bitum.	1	7′	all	1 in 4	ditto	2	10′ x 7′	2,400′	adit						(14	126	140	steam	16″	8″	150′	(fan	11/12/00
Brunner Rise ″	Dando, M. ..	7	″	1	8′	″	1 in 4	″	2	10′ x 7′	600′	dip hd.	88,115	37,288	125,403	1,594,027	1,719,430	(17	86	103	″				(nat'l	12/12/00
CANTERBURY.																											
Springfield, Springfield ..	Campbell, P. ..	24	brown	1	3′ 3″	″	1 in 6	″	2	6′ 6″ x 4′	70′	shaft	1,135	81	1,216	83,356	84,572	2	4	6	″	direct-steam	acting		exhaust from pump	5/6/00
Sheffield, Sheffield	Austin, J. ..	37½	″	1	4′	″	1 in 3	″	..	7′ x 5′	..	dip incl.	234	..	234	52,050	52,284	..	..	..	horse	..	..	..	natural	6/10/00
Homebush, Glentunnel ..	Brown, T. ..	28	″	1	7′	″	1 in 3	″	..	7′ x 6′	40 ch.	adit	6,705	..	6,705	119,583	126,288	3	10	13	″	..	..	..	″	8/6/00
St. Helen's, Whitecliffs ..	Levick, H. ..	11	″	2	3′	″	1 in 2	″	..	6′ x 4′ 6″	..	″	1,755	..	1,755	5,147	6,902	1	5	6	hand	..	..	..	″	7/6/00
Hartley, Whitecliffs ..	Thompson, A. ..	5	″	1	..	..	1 in 6	″	..	6′ x 6′	3 ch.	dip tunl.	197	..	197	1,794	1,991	2	6	8	steam	..	..	..	″	7/6/00
Mount Somers, Mount Somers	Harris, W. ..	36	″	1	35′	all	1 in 9	open	..	..	..	open	1,987	1,042	3,029	31,397	34,426	..	6	6	hand	..	..	..	″	27/6/00
Rutherford's, Albury ..	Willetts, J. M. ..	9	″	1	22′	10′	1 in 1	bord and pillar	1	4′ x 3′ 6″	68′	shaft	663	..	663	1,921	2,584	1	2	3	horse	..	..	..	″	25/6/00
Elephant Hill, Waimate ..	Blackley, J. ..	32	lignite	1	..	..	..	..	..	..	..	..	28	..	28	90	118	..	1	1	..	..	..	..	″	10/8/00
Studholme (Stony Creek) ..	Adamson, A. ..	11	″	1	..	..	..	bord and pillar	..	..	..	adit	115	..	115	94	209	1	2	3	..	..	..	..	..	..
NORTH OTAGO.																											
Hakataramea, Hakataramea	McFarlane, D. ..	½	..	..	..	..	..	..	..	..	..	..	25	..	25	..	25	..	1	1	..	..	..	..	..	..
Awakino, Kurow	Porter, H. J. ..	21	brown	1	15′	7′	vertical	stoping	1	6′ x 2′ 6″	53′	adit	126	..	126	5,459	5,585	1	1	2	horse	..	..	..	natural	11/8/00
Sutherland's, Wharekuri ..	Shanks, A. ..	..	″	..	..	..	..	..	..	..	..	..	275	..	275	689	964	1	2	3	..	..	..	..	″	11/8/00
St. Andrew's, Papakaio ..	Nimmo, T. ..	22	″	1	8′	7′	1 in 3	bord and pillar	1	4 x 2′ 6″	60′	adit	1,691	..	1,691	26,177	27,868	1	4	5	horse	..	..	..	″	14/8/00

Statistics of Workings in Coal-mines, 1900—*continued.*

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Number of Shafts.	Dimensions of Shafts.		Output delivered by	Output for 1900.			Approximate Total Output to 31st December, 1899.	Approximate Total Output to 31st December, 1900.	Number of Men ordinarily employed.			Power used for drawing Mineral.	Pumps.			Means of Ventilation.	Date of Inspector's Last Visit.
										Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.	Total.			Above.	Below.	Total.		Stroke.	Size of Barrel.	Height of Column.		
MIDDLE ISLAND—*continued.*																										
													Tons.	Tons.	Tons.	Tons.	Tons.									
NORTH OTAGO—*continued.*																										
Prince Alfred, Papakaio ..	Willetts, J. ..	31	brown	1	7′	6′	1 in 5	bord and pillar	1	4′ x 4′	50′	adit	1,185	..	1,185	42,700	43,885	2	5	7	horse	..	..	..	furnace	14/8/00
Ngapara, Ngapara	Nimmo, W. ..	22	„	1	18′ to 25′	8′	1 in 4	„	1	6½′ x 4½′	15 ch.	„	1,021	..	1,021	15,923	16,944	1	2	3	„	..	..	..	natural	13/8/00
Shag Point, Shag Point ..	Shore, T. ..	37	pitch	2	5′ and 2′ 9″	all	1 in 4	ditto and longwall	3	16½′ x 6′	450′	shaft	15,859	5,350	21,209	365,650	386,859	13	54	67	steam	2′	6″	450′	steam from pump	20/11/00
Allendale, Shag Point ..	Gillanders, A. ..	13½	„	1	3′ 6″ to 9′	„	1 in 4	bord and pillar	..	10′ x 6′	20 ch.	dip tunl.	12,068	4,527	16,595	130,375	146,970	8	46	54	..	..	..	..	ditto	21/11/00
SOUTH OTAGO.																										
Fernhill, Abbotsford ..	Gray, J. ..	23	brown	1	19′	10′	1 in 10	ditto	1	4¾′ x 4½′	..	adit	62	3,433	3,495	126,791	130,286	11	7	18	horse	..	..	..	natural	13/11/99
Freeman's, Abbotsford ..	Hill, R. ..	19½	„	1	6′ to 8′	all	1 in 9	ditto	3	5′ x 3½′ 10′ x 4′	125′	incline	4,885	4,118	9,003	235,489	244,492	3	16	19	steam	..	..	..	steam from pump	23/11/00
Walton Park, Walton Park ..	Kenyon, J. ..	30	„	1	15′ to 17′	12′	1 in 9	„	3	6′ x 4′, 12′ x 4′	25′ to 175′	„	10,525	943	11,468	531,721	543,189	3	15	18	„	..	..	..	furnace	24/2/00
Jubilee, Walton Park ..	Loudon, J. ..	4	„	1	18′	9′	..	„	..	..	..	adit	7,115	1,386	8,501	11,579	20,080	2	10	12	horse	..	..	..	natural	28/11/00
Saddle Hill, Saddle Hill ..	Christie, J. ..	26	„	1	19′	10′	1 in 10	„	3	5′ x 2′	50′	incline	1,334	7,447	8,781	99,243	108,024	4	9	13	„	..	..	..	„	28/11/00
Burnweil, Saddle Hill ..	Harris, A. ..	9	„	1	16′	10′	variable	„	1	5′ x 3′	30′	„	509	1,837	2,346	13,297	15,643	3	5	8	„	..	..	..	„	27/11/00
Glenochiel, Saddle Hill ..	Bryce, D. ..	19½	„	1	16′	7′	„	„	1	8′ x 4′	43′	„	..	1,764	1,764	21,420	23,184	1	2	3	„	..	..	..	„	27/11/00
Mosgiel, Saddle Hill ..	Sneddon, J. ..	17	„	1	15′	9′	1 in 10	„	2	4′ x 4′ 6′ x 4′	27′ to 32′	„	1,735	6,217	7,952	73,941	81,893	4	10	14	steam	..	..	..	„	27/11/00
Lauriston, Brighton ..	Walker, J. ..	14	„	1	6′	5′ 6″	variable	„	1	..	48′	„	273	73	346	4,787	5,133	1	2	3	horse	..	..	..	„	30/12/99
McColl's, Brighton	McColl, D. L. ..	12	„	1	6′	5′ 6″	„	„	..	..	..	„	..	..	..	1,122	1,122	..	..	..	„	..	..	..	„	30/12/99
Bruce, Milton	Young, A. ..	32½	„	1	15′	9′	1 in 8	„	..	..	..	adit	650	..	650	22,168	22,818	..	2	2	hand	..	..	..	„	19/12/00
Fortification, Milton ..	Shore, J. ..	3½	„	1	20′	7′	..	„	1	4′ x 4′	..	dip	1,728	..	1,728	3,426	5,154	4	6	10	steam	..	..	..	steam from pump	19/12/00
Glenledi Milton	McGilp, N. ..	..	„	1	20′	all	1 in 8	open	..	..	..	open	760	..	760	901	1,661	1	..	1	hand	..	..	..	..	19/12/00
Early Bank, Milton ..	Groves, W. A. ..	1½	„	1	..	..	..	narrow	..	..	..	„	66	..	66	254	320	..	1	1	„	..	..	..	natural	19/12/00
Adam's Flat, Adam's Flat ..	Reid, John ..	18	lignite	1	14′	10′	..	open	..	..	..	„	34	..	34	2,099	2,133	1	..	1	„	..	..	..	..	7/11/99
Paskell's, Adam's Flat ..	Paskell, J. ..	36	„	1	8′	all	1 in 6	„	..	..	..	„	8	1	9	447	456	1	1	2	„	..	..	..	..	7/11/99
Wallsend, Lovell's Flat ..	Hewitson, R. ..	30	„	1	20′	„	„	„	..	..	..	..	290	..	290	10,220	10,510	2	..	2	„	..	..	..	..	16/5/00
Lovell's Flat, Lovell's Flat ..	Carruthers, J. ..	6	brown	1	16′	8′	1 in 6	bord and pillar	2	11′ x 4′	465′	shaft	4,257	3,879	8,136	19,524	27,660	12	22	34	steam	..	..	..	steam from pump	16/5/00
Tuakitoto, Lovell's Flat ..	McDougall, M. ..	11	„	1	20′	8′	..	ditto	1	..	..	incline	12	..	12	3,060	3,072	..	1	1	horse	..	..	..	natural	2/11/99
Benhar, Stirling	McSkimming, P.	37	lignite	1	30′	12′	..	„	2	4′ x 4′	..	„	2,219	371	2,590	93,519	96,109	1	4	5	„	..	..	..	„	3/11/99
Mount Wallace, Stirling ..	Shaw, George ..	6	„	1	14′	8′ to 10′	..	„	..	..	..	adit	642	..	642	2,340	2,982	..	1	1	hand	..	..	..	„	9/2/00
Kaitangata (including Castle Hill, Kaitangata)	Broome, G. H. (W. P. Watson, general manager)	24	brown	2	10′ to 40′	10′ to 35′	variable	„	2	13′ x 5′ 6″ & 6′ dia.	704′	incline & shaft	70,895	41,560	112,455	1,257,108	1,369,563	40	268	308	steam	..	..	..	furnace	21/12/00
		7	„	1	5′ to 15′	..	..	..	1	10′ diam.	500′	incline	..	..	..	39,262	39,262	..	..	..	„	..	..	..	..	
									..	11′ x 6′ 6″	2,200′	tunnel														

Wangaloa, Kaitangata ..	Smith, J. ..	20	brown	1	10′ 6″	8′	1 in 6	bord and pillar	..	..	..	adit	42	12	54	1,234	1,288	..	1	1	hand	..	..	..	natural	20/12/00
Lischner's, Waipahi ..	Lischner, F. ..	14½	lignite	1	15′	all	..	open	..	..	..	open	3,124	..	3,124	22,734	25,858	3	..	3	″	..	..	..	..	..
CENTRAL OTAGO.																										
Coal Creek, Roxburgh ..	Coskery, R. ..	30	″	1	unknown	50′	varia le	″	..	..	..	″	1,150	..	1,150	18,416	19,566	4	..	4	horse	..	..	..	..	14/9/00
McPherson's, Roxburgh ..	McPherson, M. ..	30	″	1	″	30′ to 40′	″	″	..	..	..	″	1,777	..	1,777	18,910	20,687	3	..	3	″	..	..	..	..	14/9/00
Perseverance, Roxburgh ..	Craig, Jas. ..	13	″	1	99′	70′	vertical	narrow	..	6′ x 7′	..	adit	1,093	..	1,093	12,940	14,033	1	4	5	hand	..	..	..	natural	14/9/00
Drummey's, Alexandra ..	Drummey, J. ..	..	brown	..	..	..	..	..	..	..	..	shaft	14	..	14	165	179	..	..	..	″	..	..	..	″	17/9/00
Alexandra, Alexandra ..	Thomson, W. A...	20	″	1	14′	7′	..	bord and pillar	2	5′ x 2′ 6″ & 6′ x 4′	60′	adit	2,944	..	2,944	33,335	36,279	1	3	4	horse	..	..	..	″	17/9/00
Perserverance, Alexandra ..	Findlay, R. M. ..	..	″	..	..	..	..	″	..	..	..	″	2,226	..	2,226	724	2,950	2	4	6	″	..	..	..	″	17/9/00
Alexandra Coal Company, Alexandra	Carson, W. ..	..	″	..	..	..	..	..	..	..	..	shaft	6,207	..	6,207	3,128	9,335	3	16	19	..	..	..	..	..	18/9/00
McQueenville, Alexandra ..	Howie, J. ..	13	″	1	14′	7′	..	bord and pillar	2	4′ 9″ x 3′	62′	″	4,230	..	4,230	28,484	32,714	2	4	6	..	..	..	..	natural	17/9/00
Undaunted, Alexandra ..	Ballantyne, R. ..	1½	″	..	..	..	..	..	..	..	..	″	119	..	119	3	122	..	..	..	..	..	..	..	..	17/9/00
Cambrian's, Cambrian's ..	Dungey, C. ..	16	lignite	1	9′	all	..	open	..	..	..	open	327	..	327	13,219	13,546	2	..	2	horse	..	..	..	..	13/10/00
Welshman's Gully, Cambrian's	McGuckin, J. R.	39	″	1	30′	″	..	″	..	..	..	″	1,601	..	1,601	26,638	28,239	4	..	4	″	..	..	..	..	13/10/00
Blackstone Hill, Blackstone Hill	Dunsmuir, A. ..	34	″	1	unknown	16′	..	″	..	..	..	″	96	..	96	2,321	2,417	1	..	1	″	..	..	..	..	..
Price's, Blackstone Hill ..	Price, G. ..	3	″	1	..	..	..	″	..	..	..	″	12	..	12	40	52	..	..	..	hand	..	..	..	..	..
St. Bathan's, St. Bathan's ..	Enwright, J. ..	3	″	1	..	..	..	″	..	..	..	″	537	..	537	900	1,437	2	..	2	horse	..	..	..	..	16/1/00
Rough Ridge, Idaburn ..	Beck, C. ..	14	″	1	35′	all	..	″	..	..	..	″	522	..	522	13,266	13,788	3	..	3	″	..	..	..	..	15/10/00
McLean's, Idaburn ..	McLean, L. ..	..	″	1	..	″	..	″	..	..	..	″	157	..	157	877	1,034	2	..	2	″	..	..	..	..	15/10/00
Idaburn, Idaburn ..	White, J. ..	30	″	1	20′	″	..	″	..	..	..	″	759	..	759	30,836	31,595	2	..	2	″	..	..	..	..	15/10/00
Border, Idaburn	Turnbull, G. ..	30	″	1	12′	″	..	″	..	..	..	″	1,203	..	1,203	5,179	6,382	1	..	1	″	..	..	..	..	15/10/00
Gimmerburn, Gimmerburn ..	Docherty, C. ..	35	″	1	12′	″	..	″	..	..	..	″	46	..	46	2,517	2,563	2	..	2	hand	..	..	..	..	15/10/00
Commercial, Kyeburn ..	Archer, C. ..	21	brown	1	10′	8′	vertical	stoping	..	..	..	shaft	641	..	641	12,593	13,234	1	2	3	water	..	..	..	natural	16/10/00
Dairy Creek, Clyde ..	Robertson, R. ..	28	″	1	40′	..	..	levels	..	..	..	incline	684	..	684	5,531	6,215	..	..	..	hand	..	..	..	″	19/9/00
Vincent, Clyde ..	Turner, G. ..	..	″	..	40′	..	..	″	..	..	..	..	3,590	..	3,590	3,685	7,275	2	6	8	″	..	..	..	″	19/9/00
Cooper's, Cromwell ..	Cooper, J. ..	..	″	1	..	..	..	..	..	..	..	adit	65	..	65	320	385	..	4	4	″	..	..	..	″	8/3/00
Cardrona, Cardrona ..	McDougall, R. ..	16	″	1	30′	all	..	open	..	..	..	open	1,323	..	1,323	7,706	9,029	2	4	6	″	..	..	..	..	24/11/99
Gibbston Saddle, Gibbston ..	Macale, M. ..	14	brown	1	30′	all	..	open	..	..	..	open	647	..	647	4,427	5,074	1	3	4	hand	..	..	..	..	22/9/00
Kawarau, Bannockburn ..	Campbell, J. C. ..	23	″	1	8′	″	1 in 4	bord and pillar	1	6′ x 6′	34′	incline	2,238	180	2,418	23,555	25,973	2	7	9	horse	..	..	..	steam from pump	21/9/00
Excelsior, Bannockburn ..	Parcell, W., Jun.	8	″	1	5′ 6″	″	1 in 4	ditto	1	..	..	″	2,616	9	2,625	6,544	9,169	2	8	10	steam	..	..	..	natural	21/9/00
Bannockburn, Bannockburn	Wilson, T. ..	11	″	1	5′	″	1 in 4	″	1	6′ x 4′	20′	adit	1,247	..	1,247	1,140	2,387	2	5	7	hand	..	..	..	″	20/10/00
Nevis, Nevis	Luscombe, E. ..	7	″	1	20′	″	vertical	open	..	..	..	open	820	..	820	1,619	2,439	1	..	1	..	..	..	..	..	12/3/00
Ryder's, Nevis	Scott, C. ..	..	″	..	..	..	..	″	..	..	..	″	653	..	653	396	1,049	..	2	2	..	..	..	..	..	12/3/00
Clough and Allen's, Nevis ..	Holmes, R. ..	..	″	..	..	..	..	″	..	..	..	″	103	..	103	135	238	1	..	1	..	..	..	..	..	..
SOUTHLAND.																										
Pukerau, Pukerau	O'Hagan, C. ..	20	lignite	1	16′	10′	1 in 10	bord and pillar	..	6′ x 7′	530′	adit	996	..	996	26,651	27,647	1	3	4	horse	..	..	..	natural	..
Waikoikoi, Pukerau ..	Scott & Ferguson	½	″	..	..	..	..	..	..	..	..	..	10	..	10	..	10	2	..	2	..	..	..	..	″	..
Dudley's, Pukerau	Nelson, J. H. ..	11	″	1	16′	all	..	open	..	..	..	open	251	..	251	2,204	2,455	1	..	1	hand	..	..	..	..	..
Whiterigg, Gore	Gray, H. ..	18	″	1	12′	″	..	bord and pillar	..	..	..	adit	1,032	..	1,032	6,615	7,647	1	3	4	″	..	..	..	natural	4/12/00
Heffernan's, Gore	Boyd and McNee	22	″	1	30′	15′	..	open	..	..	..	..	730	..	730	4,053	4,783	2	..	2	..	..	..	..	..	4/12/00
Gutschlag's, Gore	Gutschlag, W. ..	17	″	1	10′	all	..	″	..	..	..	..	90	..	90	3,162	3,252	..	..	..	..	..	..	..	..	4/12/00
Leitze's, Gore	Leitze, M. ..	21	″	1	4′ to 7′	″	..	″	..	..	..	..	17	..	17	1,398	1,415	..	..	..	..	..	..	..	..	4/12/00
Sarginson's, Gore	Sarginson, J. H.	14	″	1	..	..	..	″	..	..	..	..	15	..	15	1,421	1,436	..	..	..	..	..	..	..	..	..

Statistics of Workings in Coal-mines, 1900—*continued.*

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Number of Shafts.	Dimensions of Shafts.		Output delivered by	Output for 1900.			Approximate Total Output to 31st December, 1899.	Approximate Total Output to 31st December, 1900.	Number of Men ordinarily employed.			Power used for drawing Mineral.	Pumps.			Means of Ventilation.	Date of Inspector's Last Visit.
										Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.	Total.			Above.	Below.	Total.		Stroke.	Size of Barrel.	Height of Column.		
MIDDLE ISLAND—*continued.*																										
SOUTHLAND—*continued.*													Tons.	Tons.	Tons.	ons.	Tons.									
Waikaka, Gore	Hoffman, F.	6	lignite	1	9′	all	..	open	..	..	..	..	70	..	70	534	604	1	..	1	..	..	..	..	..	4/12/00
Green's, Gore	Smyth, J.	12	"	1	19′	16′	..	bord and pillar	..	..	..	adit	4,016	..	4,016	18,025	22,041	5	..	5	horse	..	..	..	natural	4/12/00
Croydon, Gore	Hope, J.	..	"	..	..	..	..	..	..	..	..	...	25	..	25	..	25	..	..	..	..	..	..	..	..	..
Knapdale, Knapdale	Irvine, W.	15	"	1	26′	15′	almost vertical	wide headings	..	..	..	adit	622	..	622	5,403	6,025	..	1	1	..	..	..	..	natural	4/12/00
Hunter's, Otama	Hunter, T.	..	"	..	..	..	..	..	..	..	..	..	376	..	376	1,568	1,944	1	..	1	..	..	..	..	..	..
Harvey's, Chatton	Harvey, J.	23	"	1	16′ to 26′	16′ to 18′	..	open	..	..	..	open	376	..	376	12,928	13,304	1	..	1	..	..	..	..	..	24/1/00
Perkin's, Chatton	Perkins, A.	1	"	..	..	..	..	"	..	..	..	"	200	..	200	200	400	2	..	2	..	..	..	..	..	21/6/00
Pacey's, Chatton	Pacey, R.	24	"	1	unknown	14′	1 in 6	"	..	..	..	"	700	60	760	9,521	10,281	4	..	4	..	..	..	..	..	21/6/00
Johnston's, Waikaka Valley	Johnston, W.	7	"	1	11′	all	..	"	..	..	..	"	1,005	..	1,005	1,206	2,211	2	..	2	..	..	..	..	..	..
Thorndale, Waikaka Valley	Orchard, E. C.	½	"	..	..	..	..	"	..	..	..	"	20	..	20	..	20	2	..	2	..	..	..	..	..	..
North Chatton, Waikaka	McNee, J.	1	"	..	..	..	..	"	..	..	..	"	672	..	672	..	672	2	..	2	..	..	..	..	..	..
Reed's, Waikaka	Reed, R.	4	"	1	..	all	..	"	..	..	..	"	354	..	354	24	378	1	..	1	..	..	..	..	..	..
McGill's, Wendon Valley	McGill, J.	7	"	1	14′	"	..	"	..	..	..	"	323	..	323	1,425	1,748	2	..	2	..	..	..	..	..	..
Edge's (No. 14), Wendon Valy.	Nicoll, D.	..	"	..	..	..	..	"	..	..	..	"	230	90	320	966	1,286	..	2	2	..	..	..	..	..	..
Wendon, Wendon Valley	Evans, G. H.	22	"	1	16′	all	..	"	..	..	..	"	329	18	347	3,785	4,132	2	..	2	..	..	..	..	..	..
Radford's, Wendon Valley	Radford, E. and P.	1	"	..	22′	..	..	levels	..	..	..	"	204	..	204	3,711	3,915	2	..	2	..	..	..	..	natural	4/7/00
Monaghan's, Landslip, Waikaia	Monaghan, R.	1	"	..	..	..	..	open	..	..	..	"	14	..	14	..	14	1	..	1	..	..	..	..	..	3/7/00
McIvor's, Landslip, Waikaia	McIvor, W.	9	"	1	15′	all	..	"	..	..	..	"	254	..	254	1,594	1,848	2	..	2	..	..	..	..	..	3/7/00
Number One, Landslip, Waikaia	McKinnon, A.	½	"	..	..	..	..	"	..	..	..	"	113	..	113	..	113	..	1	1	..	..	..	..	..	..
Argyle, Landslip, Waikaia	Baxter, J. and T.	9	"	1	10′	all	..	"	..	..	..	"	512	..	512	1,165	1,677	1	..	1	..	..	..	..	..	23/1/00
Waimea, Waimea	Smith, A.	10	"	1	3′	..	..	"	..	..	..	"	700	..	700	5,909	6,609	2	..	2	..	..	..	..	..	4/7/00
Pyramid, Mandeville	McAllister, E.	8	brown	1	18′	9½′	1 in 2	bord and pillar	..	..	..	adit	333	..	333	1,283	1,616	..	2	2	hand	..	..	..	natural	4/7/00
Waimumu, Mataura	Sleeman, C. P.	24	lignite	1	16′	all	..	open	..	..	..	open	6,475	..	6,475	31,393	37,868	7	..	7	..	..	..	..	..	30/5/00
Bogside, Mataura	Brown, H.	3½	"	1	16′	13′	..	"	..	..	..	adit	819	..	819	1,269	2,088	1	..	1	hand	..	..	..	..	30/5/00
Beattie and Coster's, Mataura	Coster, W.	24	"	1	16′	all	..	"	..	..	..	open	1,561	..	1,561	23,745	25,306	2	..	2	"	..	..	..	..	30/5/00
River View, Mataura	Nicol, L. D.	9	"	..	..	..	..	"	..	..	..	..	15	..	15	834	849	..	..	..	..	..	..	..	..	31/5/00
Duthie's, Waimumu	Duthie, J.	½	"	..	..	..	..	"	..	..	..	..	128	..	128	..	128	1	..	1	..	..	..	..	..	..
Munro's, Wyndham	Munro, E.	13	"	1	5′	all	..	"	..	..	..	open	412	..	412	10,739	11,151	2	..	2	hand	..	..	..	..	..
Ota Creek, Wyndham	Shields, W.	20	"	1	6′	"	..	"	..	..	..	"	540	..	540	8,906	9,446	2	..	2	..	..	..	..	..	..
Wyndham, Wyndham	Walker, William	5	"	1	..	"	..	"	..	..	..	"	179	..	179	74	253	1	..	1	..	..	..	..	..	..
Robin Hood, Pine Bush	Trotter, A.	19	"	1	15′	"	..	"	..	..	..	"	144	..	144	1,235	1,379	1	..	1	..	..	..	..	..	..
Graham's, Fairfax	Graham, P. S.	22	"	1	5′ 6″	"	..	bord and pillar	..	..	..	adit	563	..	563	12,320	12,883	..	2	2	..	..	..	..	natural	..

Spey Bank, Fairfax ..	Salton, R. ..	7	"	1	5′	"	..	Ditto..	..	..	..	"	39	..	39	496	535	..	1	1	..	..	..	..	"	..
Isla Bank, Fairfax ..	Slattery, M. ..	20	"	1	6′	"	..	open	..	..	..	open	436	..	436	4,637	5,073	1	..	1	..	..	..	..	"	..
Nightcaps, Nightcaps ..	Lloyd, J. ..	19	brown	3	38′ in the aggregate	..	..	bord and pillar	..	..	..	adit	27,840	..	27,840	238,878	266,718	16	37	53	horse	..	..	..	furnace	27/10/00
Wallace, Nightcaps ..	Darcy, C. ..	15	"	1	10′	all	..	open	..	..	..	open	1,738	..	1,738	18,409	20,147	4	..	4	hand	..	..	..	..	29/10/00
Alley's Reliable, Nightcaps ..	Alley, Jesse ..	8	"	1	7′	"	..	"	..	..	..	"	80	..	80	624	704	2	..	2	..	..	..	..	..	29/10/00
Quested's, Nightcaps ..	Quested, J. ..	..	"	..	..	..	..	"	..	..	..	"	125	..	125	392	517	1	..	1	..	..	..	..	..	29/10/00
H.B., Nightcaps	Lamont J. ..	2	"	1	6½′	..	..	bord and pillar	..	..	..	adit	463	..	463	343	806	1	2	3	hand	..	..	..	natural	29/10/00
Blythe, Nightcaps	Green and Spence	1	"	..	..	..	..	..	..	..	..	..	96	..	96	..	96	3	..	3	..	..	..	..	..	..
Morley Village, Nightcaps ..	Reed, W., jun. ..	½	"	..	..	..	..	..	..	..	..	..	301	..	301	..	301	..	4	4	..	..	..	..	..	29/10/00
Wairio, Nightcaps	McBride, A. ..	½	"	..	..	..	..	open	..	..	..	open	304	..	304	3,452	3,756	1	..	1	..	..	..	..	..	27/10/00
Brighton's, Nightcaps ..	Brighton, G. ..	1	"	..	..	..	..	..	..	..	..	..	22	..	22	..	22	..	..	..	..	..	..	..	..	..
Orepuki, Orepuki	Straw, M. ..	..	"	..	..	..	..	developing	..	..	..	adit	..	1,412	1,412	5,483	6,895	7	25	32	..	..	..	..	steam from pump	21/4/00
Pits worked for Private Use only. ..		..	..	..	..	..	..	..	..	..	..	..	939	5	944	4,186	5,130	5	6	11						
Pits not working and abandoned. ..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	2750171	2750171	..	..	..						
													898,286	195,704	1093990	13119515	14213505	617	1843	2460						

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INDEX TO WITNESSES.

COAL-MINES COMMISSION: MINUTES OF EVIDENCE.

Presented to both Houses of the General Assembly by Command of His Excellency.

AUCKLAND DISTRICT.

WHANGAREI.

SATURDAY, 15TH DECEMBER, 1900.

HENRY GILFILLAN, Jun., Secretary of the Hikurangi Coal Company (Limited), examined.

1. *The Chairman.*] You have been secretary for the Hikurangi Coal Company for how many years?—From the formation of the company—six or seven years.

2. Did the company take up the ground in the first instance, or was it acquired from somebody else?—They acquired it from others mostly. Part of it belonged to the old Bay of Islands Coal Company, which company went into liquidation, and a syndicate bought the land taken over by the Hikurangi Company.

3. Had much work been done before that?—No; the present company opened it.

4. What is the capital of the company?—30,000 shares at 10s. nominal value paid up to 7s. 6d.

5. Are there any debentures or other working capital?—That is the entire capital.

6. In round numbers, how much has been expended on the ground?—Not the whole of that.

7. How much has been expended on the works in connection with the mine, exclusive of wages?—In connection with opening the mine and acquiring the land, very nearly the whole amount I stated. I cannot tell exactly without seeing my books in Auckland. We did issue shares a little bit ahead of what they actually cost. It would be very nearly £11,250.

8. Have you any idea of what would be the gross output from the time you began to win coal to the present time?—Say, 150,000 tons or thereabouts. I can give you the exact figures in town. Our present output is a little over 3,000 tons a month, but we have not been doing so much as that the whole time.

9. *Mr. Lomas.*] Do the miners make fairly regular time?—Yes; 3,000 tons a month would be a very good average.

10. *The Chairman.*] How many acres does the property consist of?—800 acres of freehold, but not all coal-bearing so far as we know now. We estimate the coal area to be contained in about 400 acres. We are also working a piece of leasehold adjoining.

11. Leased from the Government?—No, from a private individual.

12. Do you hold any leaseholds under the Crown?—None.

13. What is the market value of your coal in Auckland?—We sell it here at 7s. 6d. per ton, f.o.b. at Whangarei. That is for steam coal. For little lots we get 8s., but for the majority of it 7s. 6d.

14. How do you pay the miners?—By piecework—so much per skip. We get a little more for the steam coal we sell at the mine. The 7s. 6d. applies to the bulk of our trade—almost the whole of it.

15. Have you any objection to state what you are paying now per skip for coal-winning?—We are going to pay 1s. per skip under the recent Conciliation Board award. We are paying 2d. per skip less just now. The skips hold 12 cwt. each.

16. That is about 2s. a ton?—It will be 1s. 8d. at 1s. per skip.

17. Does it cost you anything more before it is put into the trucks?—Yes; there is the wheeling out of the mine, or trucking. There are men laying the roads in places, and engine-men winding up the dip, and men employed putting the coal into the wagons.

18. What would be the cost omitting the trucking and supposing the coal is taken into the railway-wagons: what have you to pay for the coal and terminal charges?—2s. 6d. per ton. That puts it into the vessel's hold. That includes everything in railway charges.

19. You then sell it for 7s. 6d. per ton?—Yes, f.o.b., subject to slight allowances.

20. Is there a good demand for the coal?—Yes, just now.

21. How do you class that coal?—It is steam coal principally. Very little household coal is sold in town, because we do not screen it. As it comes from the mine it goes into the wagons, except coal hand-picked in the mine for local household trade.

22. About what average wages do you suppose your coal-miners have been earning?—8s. 6d. to 9s. per day, I should think, on the old rate at 10d. per skip.

23. Are they a special class of men, or just ordinary working-men?—A great many came from the Bay of Islands mines, and Mr. Moody, our mine-manager, tells me that some of them have been with him for twenty-two years.

24. Do you think the output of your mine could be materially increased?—We could do better if we could get sailing-vessels whenever we wanted them. We depend largely upon the vessels and the weather.

25. What is the freight from the Whangarei Wharf to Auckland in sailing-vessels?—3s. 6d., and in some instances less than that. When I say in some instances it is less than that, it is due to contracts.

26. What vessels generally carry your coal?—Sailers.

27. Do the vessels belong to any particular firm?—They are principally owned by one of our directors, who acts for us in selling the coal—Captain Smith.

28. They are his private property?—Yes; and he also charters vessels whenever he can do it. The Thames and Coromandel are our principal other markets. The freight is 4s. to 4s. 6d. a ton, also in sailing-vessels.

29. Do you sell freely to all customers willing to buy?—We sell principally to Captain Smith.

30. Do you sell to anybody else?—Yes, to the Northern Steamship Company. They and Captain Smith are practically our only customers outside of local sales. It is a matter of convenience to us; we have fewer accounts and make no bad debts, and Captain Smith has his customers instead of we having them. We guard against losses, as he takes the risk. He also has the vessels with which to run the coal.

31. Then, you would not sell to strangers coming in?—I should be very glad to do so through him.

32. Supposing I asked you to sell me a cargo, would you sell it to me?—Certainly. We are not restricted to him by any means. I have done it in a few cases, but not many. We take anybody.

33. You are willing to sell to anybody who chooses to come with the money?—Undoubtedly, if the coal is available.

34. But in practice you are confined to Captain Smith and the Northern Steamship Company?—Yes; as a matter of convenience, and to guard against losses. I might say that the price in town (Auckland) is simply the coal price and the freight added. I do not think Captain Smith adds anything on to them.

35. Does he sell the coal on his own account?—Yes. At the Thames and Coromandel he puts a little on on account of extra risks. When he sells to the Northern Steamship Company, which takes the most of it from him, he sells it with just the freight added, so that they are no worse off than if they came direct to us.

36. What is the largest cargo which has been sent away, having regard to the draught of vessels?—The river is shallow in parts and difficult to work, so that large vessels cannot come here. The largest cargo would be between 200 and 300 tons. Captain Smith's vessels range from 50 tons to 140.

37. One means to increase the output would be to provide a better supply of vessels?—Yes.

38. Now, with regard to the mine itself, where are the men working?—At present we are working in as many places as we can, and we are practically employing all the men we can. Mr. Moody will give you all the information you require about the mine, but he knows nothing about the financial part of the business.

39. Is your coal used in the Town of Whangarei?—Yes.

40. What is it supplied at?—For house coal it is 12s., the same as Huntly. We are giving superior steam coal for 7s. 9d. per ton at the mine.

41. You employ sixty hands?—About that of all classes.

42. And you distribute in wages, stores, and sundries, about how much per month?—About £500.

43. Do you know anything about the existence of other coal-measures in that locality?—There are other mines that have been worked, but they are not worked at present. There is the Phœnix Mine, and another leased by Mr. Charles Smith, but they are not working now.

44. Have you many years' work before you?—I think so. We are only working portions of our land at present.

45. I suppose you have an estimate from somebody as to the quantity of coal on your land?—No. You will get that from Mr. Moody.

46. Are you troubled with faults?—Very much, and the faults are fairly numerous.

47. With regard to the miners, have there been any disputes?—No. Until four or five months ago we never had any disputes with our workmen, except with truckers, which was settled; and the last dispute has just been settled by the Conciliation Board—I may say happily settled, for we are satisfied and so are the men. We felt that the men should get something more, but we wanted the other mine-owners to be brought into line, and that has been done by the Conciliation Board.

48. Do you use much powder?—Yes, in some places. The men, I may say, are paid the same all round for hard and soft coal.

49. Do you know anything about the "iron man" in this district?—It is not in use as far as I know. Certainly it is not in our mine.

50. Is the company proving fairly profitable to the investors?—Yes; we have paid 10 per cent. per annum, but not all the time. At the start we paid nothing. We have no reserve fund, and are pretty well working up to the margin in that respect.

51. *Mr. Lomas.*] Will you tell us what is the cost of the whole management?—It is £600 a year, between Mr. Moody and myself. Every cost is included in 6s. 8d. per ton. That was our average cost for the last two years, and the average selling price was 7s. 6d. The cost is regulated by the output very much.

52. *Mr. Proud.*] I notice your coal is not quoted in the Auckland newspapers?—No.

53. Do you not do any trade with Auckland?—Yes; with Captain Smith and the Northern Steamship Company. We never had much occasion to advertise our coal. We have never been able to get our coal into the Union Company.

54. Could you not get it put on the Admiralty list?—I am afraid not. They complain of the sulphur. We tried many times with the Union Company.

55. I think if you chartered steamboats you could increase your trade during the present scarcity?—It would hardly suit our trade. You cannot keep a steamer waiting.

56. Could you not supplant a good deal of the coal that comes from other parts?—I think not. We should have to increase our plant very much, for one thing.

57. The greater the output the less the cost per ton?—That is so; but it is not every one who will take our coal. Westport has been cutting into our trade during the last year or so.

58. That is very strange, seeing that they cannot supply the orders received from foreign parts?—We had good customers in the Kauri Freehold Gold Estates Company (Limited), an English mining company, but the Westport people cut in with their slack and we lost the trade.

59. I believe they are having difficulty in getting rid of their slack in Westport?—Yes; but there is a good deal of value in their slack.

60. If you could increase your output you could increase the trade very much?—Our trade is restricted to Auckland, Thames, and Coromandel. It is not an export coal. We are confined to the local markets. Our mine is not the only mine about: there are the Huntly mines and Ngunguru Mine.

61. *The Chairman.*] Do you know for what purpose your coal is chiefly used?—Mostly steam. The Sugar Company are our best customers.

62. *Mr. Lomas.*] Is it used very much in the brickyards?—Very little.

63. *Mr. Proud.*] Is it not used for private business?—A little. Some people do not like the soot in it. The Waikato coal is much cleaner. But it makes a good house coal for those people who do not mind these things. It is semi-bituminous. When we do not screen it at all there is a fair amount of slack in it. Small lots of household coal are sold in Auckland. Our main support is the steam coal.

64. What is the cost at the pit, and the price realised?—The average cost for the last two years, exclusive of railway charges, would be 4s. 2d. That is for everything—salaries, wages, and all.

65. *The Chairman.*] Have you any suggestions to make as to inspection of the mine?—That is in Mr. Moody's department.

66. Knowing the purpose and scope of this Commission, have you any suggestions to make?—The only grievance we really have is that we think the railway rate is too high. You can see that it takes up one-third of our receipts.

67. *Mr. Lomas.*] What royalty are you paying to the people whose land you are working?—For the leasehold land we pay 9d. per ton.

68. *Mr. Proud.*] Do you not charge a royalty for the freehold?—No; the royalty is spread over the whole output from leasehold and freehold. I did not include anything for depreciation in that account of cost which I gave.

69. Do you not charge a royalty on the coal from the freehold in your accounts?—No; the royalty on coal from leasehold is spread over the whole output from both leasehold and freehold.

HERBERT ROBINS COOKE, Managing Director of the Hikurangi Collieries Company (Limited), examined.

1. *The Chairman.*] How long have you acted in the capacity of managing director?—Four years.

2. The company was formed when?—About four years ago.

3. It owns how much land?—A Government lease of 258 acres.

4. What is the capital of the company?—80,000 shares at 2s. 6d. each.

5. What is the amount paid up?—I cannot tell you the amount unpaid here exactly.

6. What rent do you pay for the land?—3s. an acre until such time as the royalty exceeds the rent.

7. Is it under the Coal-mines Act of 1891?—Yes.

8. Did you open the ground first?—We prospected the ground. I was one of the original prospectors.

9. You are now putting out how much?—About 900 tons a month.

10. And employing about how many men?—It varies according to the trade. I suppose, an average of ten.

11. How do you pay the men?—They are paid 10d. per skip of 12 cwt., and they do all their own timbering (we providing the timber) and cut their own headings. We are working in soft coal. The other company is working in hard coal.

12. This 10d. per skip is at the place where the coal is cut in the mine?—The men cut it and put it into the trucks.

13. What do you think it costs to take these trucks and put them on the railway?—It will average from 10d. to 1s. 3d. additional, according to the circumstances of the work, per ton. The cost of winning the coal and putting it on the railway-truck will average from 3s. 3d. to 3s. 9d. per ton.

14. And the railway charge?—Is half-a-crown a ton. I think we should get it for less.

15. Where do you dispose of the coal?—In Auckland. We charter vessels; we have no boats of our own. We pay about 3s. 6d. to 3s. 9d. per ton freight to Auckland, and sell it there and sometimes at the Thames, the freight to the Thames being about 4s. 6d.

16. What do you get for it in Auckland?—Most of it we sell here f.o.b., and we get from 6s. 6d. to 7s. per ton.

17. To whom do you sell it here?—Mr. Craig, of Auckland, sends his own boats and pays his own freights.

18. Is he your only customer?—No; but he is the principal customer. His average is about from 500 to 700 tons per month.

19. Do you know what the coal is best suited for?—Steam. It is not of the slightest use for a house.

20. Why not?—Ours is a soft coal.

21. Is the mine capable of being profitably developed to a much greater extent?—No, it has never paid; the shareholders have never had a penny of money out of it. One reason why we have never been able to make it pay is because we struck fireclay. We opened out about a 15 ft. seam of coal, and then got a seam of fireclay which split the coal. The best part of the coal was under the fireclay, and the biggest seam was over it. We had to take the top coal and bury all the bottom, and then we could get no market for the fireclay because it was too pure. I think the railway rate we pay should not be any greater than what is paid for the Taupiri coal. Taupiri pays 1s. 9d. per ton for what we pay 2s. 6d. Ours is classed as a bituminous coal when it is only semi-bituminous. If we could make our coal a house coal we should not feel the injustice so much, but we have not been able to make it a house coal. Taupiri coal brings £1 5s., as against 10s. 6d. for our coal delivered in Auckland at the wharf.

22. Have you anything to say with regard to the inspection or control by the Government over your mine?—The only thing we had to complain about was that, after we had prospected the ground and applied for a lease, the Government kept our money and would not grant the lease. In the meantime the Hikurangi Coal Company started and got the market.

23. But you say they have hard coal and you have soft?—That is so. As far as steam coal is concerned, having once got the market it takes a lot to dispossess them of it.

24. *Mr. Lomas.*] Do the men get paid nothing per yard for headings?—No. This coal is so much easier won that they make, some of them, £1 per day in the mine, taking the pillars and so on.

25. *Mr. Proud.*] Could you not utilise the fireclay by mixing it with impurities?—The trouble is that the Ngunguru is a good clay, and makes a good brick, and has the market. Mr. Craig took some of ours up to try it, and said it did not suit because it was too pure. The company has been worked on very economical lines.

26. It would be an important thing to utilise the fireclay?—We did all we could with it. At the present time we are taking out the pillars. We have only worked about 10 acres, and have about 250 acres yet, but the field is very broken, and you cannot depend upon it at all.

27. *The Chairman.*] What is the distance from the mine to the wharf for which this 2s. 6d. railage is charged?—Just over thirteen miles.

28. *Mr. Lomas.*] How many trucks do they bring?—From twelve to fourteen.

29. What do the trucks carry?—6 tons. I do not think the rate here should be greater than on the railway-line from Huntly. Lately we have got a bigger engine.

30. You have got the light rails here?—Yes.

31. *The Chairman.*] Are there any suggestions you would like to make to us?—No; I think the only suggestion is with regard to freight. Three mines have been closed down at Hikurangi, as they did not pay. Although our mine was the only Government lease there, it was the only mine which had to pay the half-cost of its siding, which was £125. We have had a pretty tough fight, but thought we might get over our difficulties. We have never been able to pay anything. I was one of the original Ngunguru Company, and their mine has faults. At present the difficulty at that mine is the smallness of the seams. The old Ngunguru Coal Company went into liquidation.

HIKURANGI.

MONDAY, 17TH DECEMBER, 1900.

FRANK WHIDDON, Working Coal-miner, examined.

1. *The Chairman.*] You are president of the local union?—Yes; the Hikurangi Miners' Union of Workers.

2. How long have you been working here?—A little over three years.

3. Will you tell the Commissioners, from your point of view, the position of the mine, the conditions under which you are working, and make any suggestions you care to with regard to improving or altering them beneficially?—At the present time I think the mine is very well ventilated—in fact, as well ventilated as a good many of the mines in New Zealand. I have worked in the Waikato and Kamo mines for many years. The Conciliation Board has lately sat here and improved greatly our rate of wages. The men will be much better off when they commence to work on the terms granted by the Board.

4. In your opinion, is the safety of the workers sufficiently guarded?—A great deal depends upon the men themselves, in the way they work the places, whether they keep free from accidents.

5. Do you wish to make any statement with regard to the measures taken for the safety of the men?—I do not think I can, anything more than I have said.

6. Do you think the coal is being worked to the best advantage to obtain the largest quantity of coal that may be there?—Yes, I do.

7. Have you any opinion to offer as to the quantity of coal still in your mine?—No; I can only give evidence with regard to that from what Mr. Moody has stated during the last week.

8. Can you give us any information with regard to the other coal in this immediate neighbourhood?—I believe you will find coal all the way from Whangarei to the Bay of Islands. It will be as it is here—in patches.

9. Patches sufficiently large to make it payable to work?—That I could not really give an opinion on.

10. How are you paid?—Fortnightly, per skip. Now we get 10d. per skip, but there will be a rise of 2d. to make it 1s. per skip. That starts on the 1st February.

11. What does the present rate amount to per man?—Taking the whole of the miners, I do not know that it would amount to more than 7s. a day.

12. What would it average a week?—I do not know that it would amount to quite that a week. The pit does not work full time. I should think it would amount to from £1 15s. to two guineas a week, taking the whole of the men together.

13. What do the truckers get?—At present 7s. They will get 6d. rise.

14. What do the surface-men get generally?—I have heard it is from 7s. to 10s. That is, from the engine-driver to the men tipping the coal.

15. What is a day's work?—At present we start at a quarter to 7 and knock off at half-past 3. When the award comes into force the men will go into the mine at a quarter to 8 and leave the face at 4, with half an hour for dinner.

16. That is seven and a half hours' work?—Yes; that is what we call eight hours underground

17. How many men do you reckon are employed at the present time in the mine?—About forty-five. I am not certain to a man or so. There may be fifty altogether. There are thirty-nine in the union. The surface-men are not in the union.

18. This 10d. or 1s. per skip: does that include the whole of the labour of driving the heading?—No; for every place driven 6 ft. wide you get 1s. a foot—that is, 3s. a yard—at present. The extra 2d. will come into force on the 1st February, and the yardage will not be altered with regard to the 6 ft. heading. The extra money will be on the coal in filling the skip.

19. All the appliances used in that mine are, in your opinion, satisfactory?—Yes. I think in one or two places there might be a jig to relieve the truckers of some of the heavy labour.

20. Is there anything else you can tell us about the mine?—I do not think so.

21. Are the roads all good?—I have seen better roads, but they are pretty fair. I have seen worse and I have seen better.

22. *Mr. Lomas.*] Do you get anything at all for breaking away bords?—Nothing.

23. You start at what width?—8 ft.

24. At what width are the bords supposed to be when you are working them?—8 ft.; but you crib a bit. Just now they are all broken off at 8 ft. Some time ago they all broke off at 6 ft., and you got 6s. Now they mark them off at 8 ft. and save the yardage.

25. How often do they drive stentons?—The crosscuts run about 6 yards apart; in some places less.

26. In your opinion, could not these jigs work two bords at a time, the chain going across the stentons, and so save the trucking?—It certainly would save the truckers.

27. Would it cost much to do that?—I do not know the price of the wheels, but it could be done with advantage, though it has never been tried in these parts.

28. Could the coal be worked more advantageously and with equal safety if the bords were wider?—It would take more timber to set in. Whether it would be of any advantage to the company I do not know.

29. I am speaking of the miner?—If the bord is driven wider you have more face to work on.

30. And less cutting?—Yes.

31. In driving the stentons do you get the same price as for the bords?—There is to be 4d. a foot for driving stentons when the award comes in. We get nothing now.

32. What difference is there for working in the end of the coal instead of the face of it?—We ask 6d. per foot.

33. If you got 6d. would it be equal to a man working in the bord?—I do not think so. The man in the crosscut would be a little deficient.

34. Do you find the crosscuts more difficult to work than the bords?—Yes.

35. Is it the custom in every place in the mine to cut the coal in the head?—Yes.

36. It is not optional whether the miner holes it first?—You are supposed to cut and hole it in the hard places.

37. It is optional?—Yes. Some of them do hole first, I think, and some cut them first.

38. What is the rise?—I think it is fully 1 in 6.

39. Has one trucker to push up the truck?—At present I think there are two.

40. Do you think it is quite enough for two men to do?—Yes.

41. How many iron spraggs do you put in?—Two.

42. And lock all four wheels?—Yes.

43. And that is the reason why you think they should jig them?—Yes; it would be better for themselves and the men.

44. Do you think it would be safer than lowering them down with spraggs in the wheels?—Yes.

45. How many men does one trucker truck from?—On the top of the hill I think there are three truckers for six men.

46. What number of trucks does one man hew in a day on the average?—A man finds out that he has done a good day's work when he has filled eleven skips.

47. How many days do you work in a week on an average?—For the last twelve months I think about from nine to ten days a fortnight—about five a week.

48. Do you lose any time through bad weather causing delay in shipping?—Yes, often.

49. What season of the year is that most frequent?—When the equinoctial gales are on, and often when it is stormy from the north and north-east.

50. I suppose the men are quite satisfied with the new arrangement as to price both for headings and in the bords?—Yes, I think so.

51. Do you think the men working in the headings for 1s. a foot are equally satisfied with men working at the bord for 1s. per skip, with no yardage?—I think I would prefer the headings.
52. Supposing you were both in hard coal, would the man in the heading at 1s. a foot be able to earn as much money as the man in the bord?—I think so.
53. I suppose nearly all the headings are on the end of the coal?—Yes.
54. *Mr. Proud.*] Is any coal wasted in any way? Is it all brought out?—I think it is all brought out. In the demand we made to the Conciliation Board the company are to do all the trucking from the face.

DERRICK BALL, Working Miner, examined.

1. *The Chairman.*] Do you hold any particular office in the Miners' Union?—Secretary.
2. You have heard the statement made by Mr. Whiddon?—I have.
3. Do you agree with all that he has said?—Yes.
4. Do you feel able to give us any further information on the subject?—No.
5. *Mr. Lomas.*] Is there ever much coal lost when taking out the pillars?—No. I only worked in one part when they were taking out the pillars, and there was not much lost.
6. Is there any undue danger when taking out the pillars?—No.
7. Did you find that you could make more money than when you were taking out the bords?—We were paid 8s. a day on day-work.
8. Were you supposed to fill so many trucks?—No.
9. You are of opinion that everything that can be done has been done in the way of ventilation, and so on?—Yes, to the best of my knowledge.
10. Is there any need for brattice-cloth?—No.
11. How far apart are the bords?—6 yards.
12. Do the bords go to a fault or a boundary?—To a fault generally.
13. What is the longest distance of the bord from the main heading?—I have no idea how far it is in yards.
14. How far are the men supposed to truck their coal?—They are supposed to bring their empty from the first flat-sheet.
15. No matter how far that is?—No.
16. Have you always to help the trucker up with the empty as you do with the full one?—There have been places. We have to haul our own trucks up from the first flat-sheet. In our rules it states 1 yard to 20, but that has not come into force yet.
17. Have you any custom here as to the distance you truck the coal?—No.
18. Do you drive the stentons so many yards?—They are supposed to go every 6 yards. Sometimes they are a bit short or longer.
19. Do you ever find those stentons unusually warm?—No.
20. *Mr. Proud.*] Do you lose any time for want of ships?—Not much.
21. If the pillars were made larger so that you could drive the bords further, would that be any advantage?—No.

JOSEPH STRONG, Working Miner, examined.

1. *The Chairman.*] Do you agree with the evidence given by the last two witnesses?—In the main I do.
2. You would like to add what?—Mr. Lomas asked whether we got any yardage. I think a man is working under a great disadvantage when working bords driven on a heading the same length as a bord. The bord is 8 ft. wide, and the heading is 8 ft. if driven to full width—that is to say, a man is dead on end, and never holes into any place to get any advantage. I might add that in our rules we have asked for 6d. per foot on a place of that description, and 4d. per foot has been granted by the Conciliation Board; likewise 6d. for propping up to 8 ft., and afterwards 1d. a foot upwards for setting a prop. We have made provision for fixing a set in our rules—somewhere about 3s. or 4s.
3. Do you agree with the previous witness that there is very little difference between working a heading or driving a bord?—I know that I would sooner work in a bord 8 ft. wide than in a heading 8 ft. wide.
4. Which is the best paid, the bord at 1s. per tub or a heading at 1s. per tub, with 6d. per foot yardage?—There is not much difference where the two coals are equal.
5. How long have you been working in this particular mine?—Going on for four years.
6. Have you ever seen any gas, or heard of any being seen?—No.
7. Has there ever been any serious accident in the mine during the four years you have been there?—No. The most serious accident I have heard of was where a man got his collarbone broken through a piece of coal coming off the face.
8. Was the coal spragged?—I cannot say.

HENRY HOLTON, Working Miner, examined.

1. *The Chairman.*] Have you been long coal-mining?—Yes; since I came to the colony, twenty-five years ago.
2. Where have you been engaged chiefly?—My first place was at Kawakawa, Bay of Islands. I left there about fifteen years ago, and have since worked at Huntly, Kamo, and Hikurangi. I worked at Brunner for a few months.
3. Can you add anything to the information given to us by your comrades?—I do not think I can.
4. Have you had any work here?—Not much.
5. Were you troubled with water when driving the dip heading?—Yes, a little.

6. What was allowed you for the water?—No charge was made before the Conciliation Board's award. I heard that one man was paid by yardage, and believe he made good wages. It was all in yardage, at so much per foot.

GEORGE KERR, Mine-manager, examined.

1. *The Chairman.*] You are manager of the Hikurangi Collieries Company's mine?—Yes.
2. How long have you been manager?—Four years.
3. The mine has been opened how long?—About three years and a half.
4. Did you open it?—Yes.
5. About what quantity of coal have you taken out of the mine?—Getting on to 60,000 tons, I think.
6. Will you make a statement as to the position of the mine at the present time?—The position at present is that in three months' time this block will be closed.
7. The company have how many acres?—166 acres in two blocks, of which 40 or 50 are coal-bearing. We have twelve men working. The whole property at present is for sale. We have a lease from the Government of 160 acres. It is quite impossible to say what is likely to be done with this lease. The company has expended about £2,000, which constitutes its whole capital. We have paid about £12,000 in wages and nothing in dividends. There is no reserve.
8. Can you tell me anything as to other coal-bearing areas in this neighbourhood outside the Hikurangi Coal Company's property?—There is Walton's freehold of 196 acres, which was worked some years ago during the maritime strike. There were some 3,000 or 4,000 tons taken out.
9. What do your own men earn per week on an average?—About £2. It depends upon how much broken time they have.
10. How much are they making at the present time about?—They make from 10s. to 12s. for a day's work.
11. Are the relations between the company and the men of an amicable and satisfactory character?—Yes.
12. *Mr. Lomas.*] Have you inspected this other seam of 160 acres?—The company has put in a few bores.
13. Do you know anything about its quality?—It is just about the same as ours.
14. *Mr. Proud.*] You have apparently no system or principle of working?—Yes, the pillar and bord. You could not work it in any other way.
15. You do not project your workings in any way?—No.
16. *Mr. Lomas.*] Do you find the seam broken very much?—Sometimes cut out altogether.
17. Does clay come between the seams?—It comes right down on to the floor.
18. *Mr. Proud.*] If you could have sold the fireclay it would have been of assistance to the mine?—Yes.
19. What about the ventilation?—The mine is thoroughly ventilated naturally.
20. Do you lose any coal in working?—About 2 ft. is left in the roof on account of so little cover.

WHANGAREI.

TUESDAY, 18TH DECEMBER, 1900.

THOMAS PEARSON MOODY examined.

1. *The Chairman.*] You are a mining engineer, I understand?—A civil and mining engineer and a geologist.
2. Of how many years' experience?—Actively connected with the management of mines upwards of forty years—thirty-seven years' experience in Australasia as a mine manager, three years in South Wales as underviewer.
3. You are now working manager for the Hikurangi Coal Company?—Yes.
4. And you have filled that position for how long?—About seven years.
5. You opened the mine, I believe?—Yes; I was the pioneer of the Hikurangi Coalfields.
6. You might make a short statement as to the character of the mine, the ventilation, the manner of working, and so on?—The system of mining is by pillar and stall, or bord and pillar. The mine is entered by means of an incline plane on a grade of 1 in 12. The ventilation is by natural means—we have no artificial ventilation—and it is thoroughly good and up to the requirements as prescribed by law. The seam of coal varies from 6 ft. to 16 ft. thick, without any bands.
7. The property stands on both sides of the railway-line?—Yes. We work north, south, east, and west. We work east and west of the railway and north and south of the Hikurangi Township. We have coal under the railway, but are not working that.
8. How do you propose to work the ground north-west of the railway?—By means of shaft openings.
9. Are you not afraid of water?—Yes; we shall have to pump. The dip is in that direction.
10. What proportion of the coal within your boundaries on the south side of the railway do you suppose you have worked?—About one-tenth.
11. Will you take out the remaining nine-tenths before you begin on the north-western side?—Yes; we shall take out about 75 per cent. of the remainder. In the solid coal we have taken out one-third. We shall take out 75 per cent. of the two-thirds left.
12. What depth can you work the seam?—Our seam varies from 6 ft. to 16 ft. We are now taking out an average of 9 ft. We have to leave from 2 ft. to 2 ft. 6 in. of coal to support the roof, the roof being soft. Portion of that coal under the roof may be taken out when the pillars are being extracted, but I very much doubt whether we shall. In pillar workings we may take out 75 per cent.

13. In round numbers, what do you suppose you have left?—In the 10 acres we have got sufficient coal at present rate of output of 42,000 tons a year for, say, ten years' work.

14. You have 420,000 tons in the 10 acres?—Yes.

15. And in the whole of the company's property?—I could not speak as to the whole of the property, because it has not been explored. We have 800 acres of freehold, 150 acres of leasehold, and, with the pillars in view and from what I know from boring ahead, we have sufficient coal at the present rate of output for, say, thirty years. The remaining part of the property has not been explored. We know that we have sufficient coal at the rate of 42,000 to 45,000 tons a year output to last for thirty years.

16. What is the average output for the last two years?—About 40,000 tons per annum.

17. How much do you suppose you have put out altogether?—About 300,000 tons.

18. What is there to prevent you from materially increasing the present output?—The absence of a market.

19. Do you know anything about the arrangements made by the company for the disposal of the coal?—No; that is beyond my province.

20. Have you anything to say as to the rate of wages or pay?—I think the average rate of wages earned by the representative miners during the last two years would be 9s. per day. The average rate earned by medium men would be about 8s.

21. What is the average of their pay per fortnight?—We average between five and five and a half days a week—say, five days a week. I may say that during the last three fortnights some of the best men earned £7 10s. clear, and during the past fortnight some of them earned over £6 clear of all expenses. I think the general average during the past two years, taking the best and medium men, would be about 8s. 4d. per day, or £2 10s. per week. With regard to the men employed by the day, we are paying the truckers 7s. per day, the men who work in small places and pumping 7s. per day, boys 4s. 6d. to 6s., engine-drivers 8s. constant wages, and when some of them are sick their pay goes on. At Christmas we give them a fortnight's holiday and pay them full wages. We pay our overman 10s. a day and give him a free house and coal. All our men are entitled to their household coal free.

22. Do you know enough about the coal-measures of this part of the country to tell us how the output of your mine compares with that of any other mine north of Auckland?—The only other mine that compares with this is the Collieries Company's.

23. Is it a fact that your own and the Collieries Company are the only companies north of Auckland that are supplying coal?—No. The collieries north of Auckland are the Hikurangi Coal Company, Hikurangi Collieries Company, the Ngunguru Coal Company, and the Kiripaka Coal Company. Those four are the only mines working north of Auckland.

24. How many men have you at present working in the mine?—Fifty-two altogether—viz., one manager, one underviewer, one shipping agent, one roadman, twenty-eight miners, nine truckers, two horse-drivers, two pumpers, two deputies, two timber-men and engine-drivers, one upper ground boss, one boy, and two tippers.

25. Is your underviewer a man of long experience?—Yes; he has been in my employ for twenty-two years, and holds a first-class certificate under the Mining Act.

26. It is his duty to inspect the mine every morning?—Yes; and he examines all places with a locked safety-lamp.

27. Does he report every morning?—The men are not allowed to go into the mine before he comes out.

28. How does he report?—He goes in at 5 o'clock in the morning, examines all places, and reports to the men at the tunnel-mouth whether everything is safe or not.

29. Does he enter his report in any book?—Yes.

30. Where is the book kept?—In the office.

31. And when does he write his report in the book?—Every night.

32. Would it not be better to do it every morning before the men go in?—Something might take place that might require to be entered in the book. His book is a daily report, and therefore he enters the transactions of the day.

33. Can he read and write?—No, though he holds a first-class certificate.

34. How does he manage to make a report, then?—Well, he gives the particulars to me or my bank agent, who has charge of all surface-work. He is another man who has been with me twenty-two years. He is a very intelligent man. Although the underviewer can neither read nor write he is a first-class miner.

35. I suppose in such a well-ventilated mine as yours all the precautions that are suggested and stipulated for in the Coal-mines Act are not necessary?—No.

36. You have no necessity for brattice-cloths for ventilating purposes?—No; we do not use brattice-cloths at all: we use stoppings and canvas doors.

37. Roughly, from the experience you have had, you think you have half a million tons of coal on the south-eastern side of the railway?—Yes, within the present workings.

38. And an unknown quantity on the other side?—Yes.

39. Do you anticipate a large quantity on the north-western side?—Yes, very much so, because our area extends one mile and a quarter from the railway.

40. Could you give us any idea of what sum would be required to be expended in order to thoroughly open up this mine and push the output to its fullest extent, so as to prove remunerative to the shareholders?—Considering the area of the company's land, an expenditure of £100,000 would be required to thoroughly explore the entire area.

41. And, in your opinion, such an expenditure would prove remunerative?—Yes, it would.

42. How much capital has the company expended so far?—I could not say. The nominal capital is £15,000 in 30,000 shares of 10s. paid up to 7s. 6d., leaving a liability of 2s. 6d. per share.

The opening-up of the mine has been from profit. We paid 10 per cent. the first year, and continuously since. I am the second largest shareholder. The company spent all its paid-up capital in the purchase of freehold land. We have no reserve fund, and the cost of opening up the mine has been borne by the profits derived from the sale of the coal. We are paying 2s. 6d. per ton haulage for about sixteen miles on the railway, which is really excessive. We are paying to the Government on an average from £110 to £120 a week for traction.

43. You do not screen your coal?—No. We send away a certain quantity of screened coal for local household purposes at Whangarei. I think it is a mistake to screen the coal.

44. What proportion of the coal do you lose in that way?—We get the same price for small coal as for large.

45. Have you any beds of fireclay you could utilise?—Yes, very extensive beds. Hitherto our company has been confined to the coal-mining business, but in the near future we intend to develop the fireclay beds. We have one bed of fireclay 27 ft. thick. That is immediately under the coal. I never saw such a thick seam of fireclay anywhere before, and it is really good. During this summer I am going to build a kiln and experiment with this clay, in order to ascertain whether I can produce a first-class ornamental fireclay brick for building purposes, and I believe I shall be able to produce it at a fraction over the price for ordinary bricks. During the whole of my career as manager—three years in South Wales and thirty-seven years in Australasia—I have never had one fatal accident. This is a grand record.

JOHN SWINBANKS, Underviewer, examined.

1. *The Chairman.*] You are underground manager of the Hikurangi Coal Company's mine?—Yes.

2. How long have you had charge of the mine?—Four years when February comes.

3. You have been mining for how many years?—I had charge of Kawakawa about twenty-three years.

4. You have been mining, I understand, something like fifty or sixty years?—I went into the coal-mines in 1837, when about eleven years of age. I am now seventy-four.

5. *Mr. Lomas.*] It is part of your duty to visit the mine before the men go to work?—Yes.

6. How do you inspect it?—With a Davy lamp; but there is no reason for it.

7. You make a general examination of the mine?—Yes.

8. How far, approximately, do they truck the coal down the rise bords?—From nothing to 100 yards.

9. Have you any doors in those bords?—No; just one at the bottoms. That is only canvas.

10. What is the angle of those rise bords?—It may be 1 in 12, or something like that—some more and some less. I should say it would average something like that.

11. Have the men to spragg all the wheels in bringing trucks down?—Most of them.

12. Do you consider there is any danger to men coming down with trucks while the pony-race is going past the bottom of the bord?—No; the driver who drives the horse stops till they pass.

13. Do you consider that one drop-sheet is sufficient to insure the air going up to the working-places?—I do.

14. Is that your experience in the Old Country where there is only one drop-sheet?—Yes.

15. Have you ever seen any gas at all in the mine?—Not this mine.

16. And never heard of any there?—No.

17. Is the inspection by the Government Inspector regular and satisfactory?—About once in six months, I think. Mr. Coutts was here two or three months ago with the new Chief Inspector, Mr. Hayes.

18. Have you any fault to find with the working of the mine at all?—No.

19. *The Chairman.*] Will your people work the coal on the other side of the railway?—That is questionable. It is right in a swamp, but we expect to work it.

20. If you do you will have to pump?—Yes. We have a lot of coal across the swamp.

21. *Mr. Proud.*] The mine is under your daily supervision?—Yes.

22. You make the inspections with a locked safety-lamp?—Yes.

23. You test it for gas?—Yes.

24. And examine the roof and the sides to see that all is safe?—Yes.

25. Then you return to the station to meet the men?—Yes, outside.

26. Do you write up your report when you return?—Not until after the day is over; it is written up at night.

DONALD MACLEOD, Farmer, examined.

1. *The Chairman.*] Have you been residing long in the district?—Thirty-seven years.

2. Do you own the property known as West Bryan's?—Yes; in partnership with my brother I own 38 acres to the north-west of the railway, including part of the Limestone Rocks. The West Bryan's Mine was the first worked in the Hikurangi district. We took a contract for supplying the Northern Steamship Company during the time of the strike. The mine was leased to Mr. Smith, but through the cutting-down of the price and the high railway charge the mine had to shut down as soon as the incline was worked out.

3. How much did Mr. Smith pay you for royalty?—9d. per ton.

4. How much do you suppose you made out of it?—About £200 or £300.

5. You think the only reason why the mine shut down was the unsatisfactory price?—That was the sole reason. In our case the incline had been worked out or it might have paid.

6. How many drives did you put in?—There were two main drives put in on the incline.

7. How far did they do in?—Perhaps 200 yards.

8. Did they go right through coal?—They came to a fault or dip.

9. And what depth was the seam?—From 6 ft. to 7 ft. or 8 ft.
10. Did they average that?—Yes.
11. What was it at the beginning?—Just the same.
12. Did you ascertain what depth it was?—We had nothing to do with the management of it.
13. Was the water any trouble to you?—There was a good deal of water in the dip. I think a skip of water was taken out for every ton of coal.
14. Do you know what quantity of coal was taken out?—I really could not say.
15. Were there some thousands of tons?—Yes.
16. Is the mine worth opening again?—Decidedly; it is not worked out at all. It was only the incline that was worked out.
17. What would it cost to open it properly?—It is in order now, but it would perhaps take a week to take the water out.
18. What price would pay you?—10s. would certainly pay. The raising of the rate on the railway made it worse. The rate was only 2s. at first.
19. Would 6d. per ton make the difference between success and non-success?—At the time Mr. Smith stopped that 6d. would have carried him through. That would be the difference between profit and loss. There was a great deal of cutting at the time.

JAMES MCKINNON, Clerk of the Whangarei County Council, examined.

1. *The Chairman.*] What are you in connection with this particular property called the "Whareora Coalfield"?—I am one of the members of a syndicate formed to develop it. We hold about 2,600 acres of land, of which about 800 acres is freehold, of which we have the deeds, and the balance freehold property, over which we have an option to purchase.
2. What has been done?—We have driven 150 ft. on a coal-seam, commencing 3 ft. and increasing up to 7 ft. The sample of coal is very good. We have started boring, and have bored down to 110 ft. at present on the coal cover in the centre of the field.
3. How far is it from any railway?—The Whangarei-Kamo is the nearest railway, some eight or nine miles distant; but we intend to connect the field with a private line to Grahamstown —which will be about six miles in length—where there is deep water.
4. How much money do you suppose you have expended in developing the property?—Roughly, about £150, and £2,000 in securing freehold property.
5. Is anybody at work there now?—Yes; a party of ten men have been working a month.
6. And in the drive what have you in the way of a seam?—We have a 7 ft. seam, which is on the increase.
7. What kind of coal is it: similar to that of Hikurangi?—It is of better quality than the Hikurangi coal. It is a brighter and a cleaner coal, with not so much sulphur.
8. What steps have you taken to form a company?—We are first prospecting to ascertain the area of coal in the field before forming a company. We have also driven a short distance at the Waitangi Creek, where a good 6 ft. seam has been found.
9. What is the surface like?—It is pretty even, with a green sandstone cover under the soil.
10. I suppose you cannot speak as to probable faults?—No. On the surface there are about 400 acres of bush suitable for mining timber, and part of it is agricultural land occupied by four settlers.
11. How long have you lived in the district?—I am a native of the district, and am thoroughly acquainted with it.
12. I suppose there are outcrops of coal throughout the whole of this electorate?—There are outcrops known in about eight different places, and the indications of coal are numerous throughout the district.
13. *Mr. Lomas.*] Are the 6 ft. and 7 ft. seams the same seam?—Yes. It dips under the hill near the creek on the east of the field.
14. Is all your coal in the dip?—Yes, as far as we know. The dip is about 1 in 50 at present.
15. What is the nature of the surface?—Mostly poor land covered with some bush, scrub, and fern.
16. Are there no chasms or anything of that sort?—No; it is the same nature of country all through, the coal cover being hard greensandstone.
17. As far as you know, the seam may thicken out as you go down?—Yes.
18. Is it pure coal?—It is mixed with a conglomerate at the edge of outcrops, and becomes solid coal as we get lower down.
19. *Mr. Proud.*] You expect to have two beds of coal?—Yes.
20. Will you prove that by boring?—Yes.
21. Will the coal be suitable for household purposes?—Yes; I use it in my own house and it suits very well; and it is also a suitable coal for steam purposes.
22. Will it be a smithy coal?—It acts very well as a smithy coal. I have had a trial with the local blacksmith, the results being satisfactory.
23. Would it be suitable for brick-burning?—Yes.
24. Could you load a ship of any size?—Pretty well any size at Grahamstown, where there is 20 ft. at low water.
25. *The Chairman.*] Can a vessel drawing 18 ft. go in there?—Yes.
26. *Mr. Proud.*] Could you load a battle-ship?—Yes; but larger ones at the Whangarei Heads.
27. *Mr. Lomas.*] Do you apprehend any difficulty with water?—No. If we sink over the valley in the centre of the field we shall require a pump to pump the water out of the shaft and workings of the mine.

NGUNGURU.

WEDNESDAY, 19TH DECEMBER, 1900.

ALFRED HENRY TAYLOR examined.

1. *The Chairman.*] You are mine-manager of the Ngunguru Coal-mining Company (Limited)?—Yes.

2. How long have you been so?—A little over a year. I entered on the management in November, 1899.

3. The mine is situated on the southern bank of the Ngunguru River, which is a tidal river?—Yes.

4. The entrance to the mine is about 150 ft. above the level of the riverbank?—About 140 ft. We have a self-acting incline, the first section of which is 8 chains in length, rising to 100 ft. Then practically a flat of about 5 chains, and then another incline of about 6 chains, rising 40 ft.

5. The mine has been working for how long?—It commenced eight or nine years ago, I believe. The output, I understand, has been about 15,000 tons a year, or about 150,000 tons in all. The coal is lowered down the incline in trucks containing about 8 cwt. It is then taken along by a horse tramway about a mile, and shipped on board small vessels carrying about 140 tons as a maximum. We also send coal down to the sailers by pontoons, which take the coal in from hoppers at the bottom of the incline on the creek. We also load the sailers from pontoons loaded at the end of the horse tramway.

6. How many men have you at present working in and about the mine?—A total of forty-one men and boys—viz., twenty-two hewers, six truckers, three shift-men, two borers, an engine-and-pump man, a deputy, a blacksmith, a carpenter, two tippers, a horse-driver, and two on the steam-launch.

7. How do you pay the hewers?—So much per skip, which varies from 11d. to 1s. 5d. The Conciliation Board increased the price lately by 1d. per skip.

8. How much are the men able to earn per day?—At the last pay they earned an average of 9s. 3d.

9. What is the average per fortnight?—There were 32½ working-days in the last six weeks—about 10¾ days per fortnight. The wages-men get 8s., the truckers from 6s. 6d. to 7s., per day, according to the work they have.

10. You are not troubled about the ventilation in the mine?—It is very changeable, according to the winds.

11. Is it thoroughly ventilated by natural means?—The ventilation is very good.

12. Is there any gas?—I have never seen any except black-damp. There is no water except in the wet seasons. We use a duplex Tangye pump.

13. What is the size of the seam near the entrance of the mine?—The seam varies from 2 ft. to 7 ft.

14. What proportion of the coal procurable from your present workings and purchased do you suppose you have taken out?—I estimate that the total quantity left in the mine is about 35,000 tons.

15. Is that in the whole of the company's property?—Yes.

16. Do you know of any other coal-seams contiguous to the company's property or in the immediate neighbourhood?—Yes; but I do not know much about them.

17. Then, the value of the property can be reckoned at 35,000 tons *in situ?*—Yes.

18. When you have taken this 35,000 tons out what will happen?—We are proceeding in the direction of procuring more. If the 35,000 tons are taken out the mine will be done. We are prospecting and have obtained indications of coal, and an expenditure of £300 will connect with the present workings if the prospecting operations turn out to be successful.

19. Where does the company sell the coal?—I do not know what price the company gets for its coal, nor the arrangements it makes for the sale of it.

20. You do not know whether the company is profitable to the shareholders?—I believe the company is holding its own as far as receipts and expenditure are concerned, and I think that is about all. I have not heard whether it has paid a dividend.

21. How would you class the coal?—Semi-bituminous, useful chiefly for steaming purposes for vessels. We do not prepare any for household purposes; we have no sale whatever for that.

22. What was the output for the last month?—1,600 tons.

23. Was that an average month?—That was a very good month.

24. In some places the seam is very thin?—Yes.

25. Is that more expensive to work?—It costs 3s. 4d. a ton to hew the coal, and about 4s. per shift on that to blow the bottoms up.

26. For hardness, how does your coal compare with the Hikurangi Coal Company's?—It is about equal in hardness. The thinner the seam the harder the coal. The company loses on the thin seam, but we go on because it helps the prospect.

27. Do you think you have sufficiently prospected the whole of your area by means of bore-holes to ascertain whether there are any other seams available?—No.

28. What system is in use—the pillar and bord?—Yes.

29. Have you taken out any of the pillars?—We are taking out pillars all the time, with the exception of the low bords, for prospecting purposes.

30. What is the width of the bord?—12 ft. wide, and the pillars 18 ft. to 21 ft. thick. We could not use the longwall system in our mine, because there are too many faults. The cover of the coal varies from almost nothing to 100 ft. in thickness: that is at the crown of the hill. The contour of the hill is very irregular.

31. What is the area of the property?—The company has about 2,000 acres altogether. I do not know the title.

32. We shall be glad to take any suggestions or recommendations you may have to make with regard to the Government side of the question?—I have no strong recommendations to make. I think a good many of the fires that take place in mines are caused by the inferior paper which is used in the cartridges.

33. How often is the mine inspected by the Government Inspector?—I think Mr. Coutts has been here twice within the last few months.

34. I suppose the mine is carefully examined every morning?—Yes.

35. Are the reports made before the men go in?—Yes, and signed in the office on the bank. I strictly enforce that. I cannot suggest any matter to enable the Government to improve things.

FRANCIS CLOKE, Underviewer, examined.

1. *The Chairman.*] What are you?—I am the underviewer of the Ngunguru Coal-mine. I have been working here about two years and a half. I have been underviewer about thirteen months.

2. Is there anything special with regard to this mine, so far as the ventilation is concerned, or in connection with the water, gas, roads, and so on?—We have pretty good ventilation. Sometimes in the dip we have been flooded out with water during the winter, and there was a certain amount of black-damp there, but no inflammable gas.

3. How did you overcome the difficulty with regard to the water?—By getting out the water when the air-course was open.

4. Do you inspect the mine every morning?—Yes.

5. And make a written report before the men are allowed to go in?—Yes.

6. What did you do when you found the black-damp?—I put up a notice-board with the words "No Road—Danger" on it.

7. What quantity of available coal is left?—There is a lot of ground not explored yet. If all were taken out that is in sight, I should put it down at, perhaps, 30,000 or 35,000 tons.

8. What do you think of the chances of getting more coal?—The chances are good enough, I think, but it is hard to say.

9. Have you had much experience with the northern coalfields?—Yes; it is about seventeen years since I came to the colony. According to the lay of the ground, I think there is a chance of getting more coal.

10. And, if successful, would it require an expenditure of much capital to work it?—I have no doubt it would, but I could not estimate the amount. If a crowd of men had it on their own account it would probably be done cheaper than by a company.

11. Do you think a co-operative company would have a fair chance of success?—They would have to face the difficulty of finding capital to open the mine, and the still greater difficulty of finding vessels to carry the coal away, and the most profitable market in which to dispose of it.

12. Have the men anything to complain of?—No; except that at times the coal is on the thin side, when they cannot get out so much as they would like. I think the Ngunguru Creek taps a big coalfield. The Kiripaka Mine, I believe, has a seam from 12 ft. to 20 ft., but there are only 4 acres of coal. The whole country-side is a big coal district: there are indications all over it, but there has not been much testing. A great difficulty here is the loading, as the river is shallow. If the district were thoroughly opened up, I believe there is work for thousands of men.

13. Are all precautions necessary taken for the safety of the men and the mine?—Yes, so far as my knowledge leads me.

14. Have there been any accidents?—About a fortnight ago a man was injured through not obeying orders to put in timber. A stone struck him on the shoulder and hurt his collarbone. One other accident occurred through a man overstraining himself in lifting a skip, but he was only laid up for a fortnight. Those were the only accidents.

GEORGE CADMAN, Miner, examined.

1. *The Chairman.*] What position do you hold?—I am a working miner in the Ngunguru Coal Company's mine. I and George Windess represent the men working in the mine.

2. Are there any special matters you or your comrades wish to bring before the Commission?—No.

3. Have you any grievances?—No.

4. How long have you been working in this mine?—Close on three years. I was here before.

5. How long do you think you will be here?—It might be three or four years, but we do not know what is in view.

6. What is your output per month?—About 70 or 80 tons per day; but the mine has not been working very regularly.

7. Are you satisfied with the precautions taken in the mine for the safety of the workmen?—Yes, I think so.

8. And with your pay as recently fixed?—Yes, as fixed by the Conciliation Board.

9. Have you noticed any signs of danger in the mine from firedamp or insufficient timbering?—No; the mine is clear of gas.

10. Have you done any prospecting for coal in these basins?—Yes, I have done a little.

11. Have you found any indications of a more extensive field?—Not outside the company's property.

12. *Mr. Lomas.*] How do you work out your pillars?—We generally split them.

13. Do you find them at all dangerous?—Yes; they are not the best in the world.

14. Have you found many pot-holes in the roof?—We come across some occasionally.

15. Have you found those difficulties in the pillars?—No.

16. Have you ever worked in places where the water has come in on top of you from the roof?—Yes; but not badly.

17. Did you get anything extra or work shorter hours?—No.

18. *Mr. Proud.*] Do you lose much coal when working the pillars?—We ose a few trucks sometimes. The biggest loss was about thirty skips. The only thing I do not like is going through two falls to get a pillar where the pillars have been taken out.

19. Do you do your own trucking?—Yes, to 50 yards; we get 1d. a truck after that.

20. Are there any of the thin seams worked by day-work?—Mostly by piecework. I believe some are now done by day-work at 9s., but only during the last week. It has not been the regular thing.

GEORGE WINDESS, Miner, examined.

1. *The Chairman.*] You have been present during the time Mr. Cadman gave evidence?—Yes.

2. And you are one of those chosen by your fellow-workmen to represent them here?—Yes.

3. Do you agree with him in what he has told us?—Yes.

4. Can you give us any information on your own account?—No, not at present, I think.

[N.B.—For additional evidence *re* this mine, see the evidence of Ernest George Robert Ford, Auckland, 7th January, 1901.]

KIRIPAKA.

WEDNESDAY, 19TH DECEMBER, 1901.

GEORGE CLEMO, Working Manager of the Kiripaka Coal Company (Limited), examined.

1. *The Chairman.*] How long have you been employed here in the capacity of manager?—Since the beginning of operations in 1898.

2. What does the mine and property consist of?—We have 45 acres held under Native owners.

3. What rent do you pay?—8d. per ton royalty.

4. You have driven on the coal what depth from the face?—5 chains back into the hill.

5. At what height above the creek-level?—About 90 ft.

6. About how much on the top of the hill?—About 100 ft. to 120 ft. below the crest of the hill.

7. You carried a seam with you all the way, of what thickness?—Running from 7 ft. to 23 ft., and perhaps over, as we have not stripped the roof to the covering.

8. What class of coal do you call it?—Bituminous.

9. How much have you taken out?—About 12,000 tons.

10. You estimate the remainder in your mine at how much?—I dare say there is 100,000 tons.

11. How and where do you sell it?—The secretary in Auckland does the selling business. It is sent to Auckland.

12. Have you any trouble as to ventilation?—No.

13. Have you had any trouble with water?—We have had no trouble yet.

14. Is there no pumping required?—The headings are dipping a little now, and we may have to put in a small pump.

15. What do you pay the hewers?—10d. per skip. The men make 10s. to 11s. a day and average full time—that is, for the last three months.

16. How many men do you employ?—Ten hewers, one trucker, and one tipper.

17. How do you get the coal away?—We lower the coal by means of a self-acting incline, tip it into barges, which are towed by a steam-launch about six miles down the river, where it is put into sailers, which carry from 44 tons to 100 tons. The incline is 18 chains, and rises about 90 ft.

18. Have you had any accidents in the mine?—No; we have been free from accidents in any shape or form.

19. Have you an underviewer?—No.

20. Do you examine the mine every morning?—Yes.

21. And make a written report?—Yes.

22. And actually enter the report every morning?—Yes.

23. What is the capital of the company?—10,000 shares of £1 each, 5s. paid up.

24. Are you a shareholder?—Yes.

25. Did you prospect the mine?—Yes.

26. There was a private syndicate first?—Yes, of three men.

27. And they sold the mine to a company?—Yes.

28. Did they get paid in cash?—No, shares.

29. How many shares did you get?—1,333 shares paid up to 5s.

30. Have you any idea of what the other shareholders have paid up?—I think £500 was paid up in cash.

31. What did the work cost, in round numbers, to open the mine?—About £500 for opening the mine.

32. Do you know what this coal sells for in Auckland?—No.

33. What is it mostly used for?—All steam.

34. Is there any more coal outside your 45 acres?—There possibly might be, but I do not know of any myself.

35. Have you done any prospecting?—No.

36. Will you be able to work the whole of the 45 acres from this tunnel?—I think so.

37. *Mr. Lomas.*] Have you worked any of the pillars at all?—No.

38. What is the size of the pillars?—20 yards by 10 yards.
39. How do you purpose taking the pillars out?—Taking the lifts off.
40. How often do you propose to split it?—Only once.
41. How much coal do you think you will lose in taking out the pillars?—Not much.
42. What thickness do you propose to leave in the roof?—3 ft.
43. Do you think the timber you set in that mine is strong enough for the weight it has to carry?—Yes.
44. You have seen no gas in the mine?—None at all.
45. *Mr. Proud.*] I think you said you got about 90 per cent. of the coal?—Yes.
46. Have you any other minerals except coal?—We have fireclay in places.
47. Any limestone?—No.
48. You do not make bricks?—No.

SAMUEL MORELAND, Miner, examined.

1. *The Chairman.*] You are a miner employed in the Kiripaka Coal Company's mine?—Yes.
2. How long have you been working there?—A little over twelve months.
3. You and your friend here represent the working miners in the mine?—Yes.
4. Do you wish to bring before this Commission any particular matter?—No, not that I am aware of.
5. Are you able to make fair wages?—Yes.
6. Are you quite satisfied that all things necessary for your safety are done?—Yes.
7. Are you able to inform us of the quantity of coal there is here?—I have never made any calculation. As a rule miners do not interfere with that sort of thing.
8. Is the mine inspected every morning before you go in?—Yes.
9. Are you kept waiting until the report is made?—The manager comes out before we enter the mine and lets us know when to go in.
10. Have you any suggestions to make as to waste, &c.?—No; there have been no pillars taken out.
11. *Mr. Lomas.*] In your opinion, would it increase the danger of working the pillars owing to the bords being so high?—Looking at it from one point of view it would, providing you took out the same amount of coal at the finish. There is sufficient coal left overhead to keep up the roof, and, if the pillars are taken out, I suppose the management will work the pillars according to the height.
12. In taking out a pillar 10 ft. high, the bord being 13 ft. high, would it not increase the danger to the men, owing to one side of the coal being loose?—Yes, it would.
13. Would it be safer to work the coal at a reasonable height in the bords and work out the pillars at the same height? Would the road itself be safer at 10 ft. than 13 ft. high when taking out the pillars?—Yes.
14. Very much, do you think?—Yes.
15. The ventilation is all that you could desire?—Yes.
16. There is no fan: it is natural ventilation?—Yes.
17. Does it ever get warm when you are working through the stentons?—We drive 30 ft. before putting a crosscut in, and then 24 ft. through the crosscut.
18. That is 54 ft.?—Yes.
19. Has it been customary to work 50 ft. without carrying the air to the face—without bratticing?—In some mines it is necessary to do so, but with the ventilation we have here I do not think bratticing is necessary.
20. *Mr. Proud.*] Do you think any danger arising out of working the pillars could be provided for by systematic timbering?—It depends upon the principle adopted.

MICHAEL MCCORMACK, Miner, examined.

1. *The Chairman.*] You are one of those chosen to represent the miners here?—Yes.
2. You have been present during the examination of the last witness?—Yes.
3. Do you agree with the evidence he has given?—Yes.
4. Can you add anything to it?—No.

WILLIAM CALLAGHAN examined.

1. *The Chairman.*] You are one of the directors of the Kiripaka Coal Company (Limited)?—Yes.
2. The capital of the company consists of how much?—10,000 shares of £1 each.
3. Is any of it considered to be paid up?—In the first instance, myself, my brother, and Mr. Clemo formed a syndicate. We started to get all the permanent-way here, and after completing that part of it we found we required more capital to go on with the working of the mine, and took in five Auckland people, who put £500 into it. After that we turned it into a company with a capital of 10,000 shares.
4. How many shares did you take?—4,000 shares were taken by the three of us. We understood that our shares were to be considered fully paid up, but in forming the company there was some misunderstanding, and it appeared that without all the money was paid up they would not allow it. There is now a 15s. call upon them.
5. You got nothing except the 1,300 shares paid up to 5s.?—Yes. In the first place, I and my brother owned the mine. We took Clemo in and he paid about £300, which was expended on opening the mine.
6. Do you own any of those barges and scows?—Yes, and the steam-launch.

7. Who found the money for those?—The company. When we formed the company it was a going concern. The barges were found out of the money that the others paid in.

8. Since then the company has paid its own way?—Yes.

9. How do you dispose of the coal?—Some goes to Gisborne, some to Paeroa, and some to Auckland. We have sold it at from 6s. 6d. up to 6s. 10d., and now get 7s. 6d. a ton for it in the Ngunguru River.

10. To whom do you sell it?—It is now sold to Mr. Winstone, in Auckland. It is sold for 7s. 6d. in the river.

11. Has he any interest in the company?—None whatever.

12. You are not bound to anybody?—No.

13. Are there any contracts?—There are contracts with Mr. Alison, of the North Shore Ferry.

14. You supply it to him for what?—6s. 6d. and 6s. 10d. They find their own vessels, and we deliver it at the Ngunguru Port.

15. What do you put out per month?—For some time we had only one punt, but now we have a third one. We put out nearly 400 tons a week.

16. Have you been able to divide any profits?—We have had two dividends of 10 per cent., and are quite content. Adjoining us to the west is Government land of about 200 acres, which in all probability is coal-bearing.

17. I suppose you can see several years' work before you?—Yes.

HUNTLY.

FRIDAY, 4TH JANUARY, 1901.

JAMES COUTTS, Inspector of Mines, examined.

1. *The Chairman.*] You are Inspector of Mines for what district?—For the coal-mines in the North Island.

2. Take the Hikurangi mines first: give us as full information as you can of your own knowledge regarding these mines?—The Hikurangi Coal Company's mine is opened up from an incline plane. The coal is semi-bituminous. The ventilation is by natural means, and is fairly good. The method of working is the bord and pillar. The present workings are to the north-eastern side of the railway-line, but the amount of coal on that side of the line is rather limited. They have encroached in one place on the reserve.

3. Will they be able to work on the south-western side?—Not without putting up machinery and pumping out the water. That will entail an expenditure, if properly done, of £2,000 or £3,000.

4. Are you satisfied with the way in which that mine has been worked?—Yes. The pillars are rather small, but there is little danger of the roof coming down. It has been a very safe mine to work in.

5. The next mine is the Hikurangi Colliery Company's?—Yes; that is only a small patch of coal situated on the top of a hill, and it is nearly exhausted. The coal worked has been very expensive to work.

6. Do you know Mr. Swinbanks, the underviewer?—Yes.

7. Is he a competent man?—He is a good practical man.

8. In his evidence he told us that he went down the mine every morning, and sent the men down afterwards, but reported in the evening. Is that in accordance with the regulations?—I do not know that the regulations provide for that.

9. Are you aware that he can neither read nor write?—Yes.

10. Do you think that interferes with his efficiency?—I think he is a good practical man for the work he is employed at.

11. Now, take the Ngunguru Coal Company's mine: how is that mine worked?—On the bord-and-pillar principle.

12. What have you to say as to the quantity of coal there?—It is very limited. It is a very thin seam they are working at the present time, and with a little they get out of the pillars and bords combined they are able to keep up their supplies.

13. Are you satisfied that due provision is made for the safety of the workmen?—Yes.

14. Is the ventilation good?—Yes.

15. And the Act has been complied with?—Yes.

16. What have you to say with regard to the Kiripaka?—That is only a small patch of coal situated on top of a spur, and the amount of coal is only very limited.

17. Are you satisfied with the way in which the mine has been worked?—Yes.

18. And you think there is no danger to life in the methods adopted?—No, not that I know of.

19. Have you found any difficulty in keeping the small mine-owners up to the mark with regard to the regulations?—There is sometimes a little trouble, owing to these men not being very well educated, in getting them to comply with the regulations.

20. How often do you inspect those mines?—I inspect them once a year, and the Assistant Inspector visits them once a year, so that there are really two inspections. During the last year, however, I have been there several times.

21. *Mr. Lomas.*] At the Kiripaka Mine have you seen the pillars being taken out?—No.

22. Would it not, in your opinion, be safer to drive the bords the same height as they take out the pillars?—Decidedly.

23. *The Chairman.*] Now take the Waikato mines: What have they been doing lately at Ralph's Mine?—They work from a shaft, and most of it has been worked from the Waikato River. The principal fault we had to find was with the air-shaft. There was not a proper outlet for the men to get out, but they have been preparing it. They will have to get a shaft over the river by-and-by.

24. Are you satisfied that the safety of the men is sufficiently protected?—Yes; boreholes are put up every 5 yards to see that they have 9 yards overhead.

25. Have you been unable to detect any danger?—No.

26. You think that the measures now being taken will provide sufficient air and means of exit for the men in time of danger?—Yes, I do.

27. Now take the Extended Mine?—They are only working there on a limited scale at present, and developing portion of the mine. They have worked out most of it, and are developing another portion of the mine at the present time.

28. From your inspection of to-day, are you satisfied that things have been done properly?—Yes; they have plenty of ventilation at the present time, and the men are quite safe. There are times when the ventilation is not all that could be desired, but that is always to be expected.

29. What have you to say with regard to the Taupiri Reserve?—The ventilation was not so good as it might have been to-day. Sometimes the brattice-cloths will not keep tight.

30. Have you any suggestions to make about that?—I have told them about it to-day, and instructed them to attend to it.

31. Do you consider that there is any danger from the lake?—There are three places where things were not so satisfactory as they might have been. This was pointed out to the previous manager with the object of having them made good, and he put in timber, but it was not good enough. When the present manager was appointed he commenced to fill it with stuff from the surface, and rammed it in the weak part of the roof. As it was at the edge of the lake we thought it was not safe for the men to work there.

32. You are now satisfied that it is safe for the men?—Perfectly satisfied.

33. How much coal is there?—They cannot tell what coal they have.

34. What proportion of coal are they able to win?—I do not think they are taking out more than one-seventh of the coal.

35. Do they lose much in slack?—Yes, there is a good deal of slack.

36. Can you give us any suggestions as to improvements that can be made in the inspection, control, and management?—As far as the inspection is concerned, the men have power in their own hands to inspect the mine every month.

37. Do they avail themselves of that position?—Yes.

38. Have they reported favourably?—Yes. You might go into any mine and find what they say in their reports.

39. *Mr. Lomas.*] Do you think it would be an advantage to insist that where drop-sheets are used and trucks go through there should be two drop-sheets instead of one at certain distances apart?—No doubt two would be better than one.

40. Have you not power to insist on that?—If we think there is too much air escaping we can make them remedy it. We have power to enforce that the men shall get sufficient ventilation. In some cases the men are very careless in leaving their brattice-cloths up.

41. *Mr. Proud.*] Are the old working-places in a safe condition?—Yes.

42. Where there is anything not provided for by the Coal-mines Act, have you sufficient authority to take action?—Yes.

EDWARD SEPTIMUS WIGHT examined.

1. *The Chairman.*] You are general manager of the three Huntly mines known as Ralph's, the Extended, and the Taupiri Reserve?—Yes, I am the colliery manager.

2. You know nothing as to the capital of the company, I suppose?—No.

3. Taking Ralph's Mine first, do you know how long it has been working?—It has been working about ten years, and I have been in charge about six months. Out of that time it was closed down for five years, and started to work again about two years ago.

4. You are now putting out about how much coal?—About 170 tons per day. The mine is worked by one winding-shaft 190 ft. deep, and an air-shaft 150 ft. deep 51 ft. away from the winding-shaft. It extends north-westerly across the Waikato River in a seam of 70 ft. in thickness at the shaft, and it has been proved by boreholes to be of varying thickness from 30 ft. up to 60 ft.

5. You are now employing how many men?—Between eighty and ninety men above and below ground.

6. Who earn an average of about how much?—The hewers average about £2 5s. per week and the service men about £2.

7. Do you know anything about the disposal of the coal and the prices obtained?—I know what I am authorised to sell it at.

8. What do you sell the coal at?—For quantities under 20 tons per month, house coal 13s. per ton delivered at the mine, less 6d. per ton discount; for quantities over 20 tons per month, 1s. per ton discount. Steam coal is 9s., less 6d. a ton discount, for quantities under 20 tons a month, and 1s. discount for quantities over 20 tons. Nuts, 4s. a ton; slack, 2s. a ton.

9. What proportion of your output of 170 tons per day do you sell at the pit's mouth?—There is practically nothing sold at Huntly. It is sent to places outside the district.

10. By your principals?—No; we do not pay freight, we sell at the pit's mouth.

11. And you sell it all?—Yes; the consignees pay freight, with the exception of those who get the coal supplied at flag-stations.

12. The company has no agents for the sale of the coal. Who is your principal customer?—Mr. J. J. Craig.

13. Have you any particular contract with him to take it?—Not that I am aware of.
14. You consign it to him?—Yes.
15. And he pays freight?—Yes.
16. Do you know what the haulage rate is from here to Auckland?—Yes, 6s. 6d. a ton.
17. And to the Thames?—Between 7s. and 8s., I think, but I cannot say from knowledge.
18. How many levels have you from this down-shaft of yours?—There are three levels.
19. And you work the coal to a height or depth of what?—20 ft.
20. The rest of the coal you have to leave *in situ?*—Yes.
21. Have you any difficulty with the ventilation?—I have a little difficulty at present during the time of the alterations. I anticipate a little more until we get our fan erected. We have enlarged the air-shaft from 5 ft. square to 8 ft. 6 in. diameter, lined from bottom to top on brick-work, fitted with buntoms for steam-pipes. We are erecting a 15 ft. Waddell fan, which is due on the 15th of this month. Everything will be ready by the time it arrives to put it into position, and I hope to have the ventilation three times better than it is at present—40,000 cubic feet per minute. We are expending in money nearly £2,000 on this mine alone.
22. In your improvements are you making any better provision for the return air?—Yes.
23. As well as that, are you making any provision for a return travelling-way?—Yes.
24. Are you doing this in consequence of representations made by the Inspector or simply on your own motion?—From my own idea and from the necessities of the mine. At the same time I know that representations had been made by the Inspectors to my predecessors.
25. You are not working any part of the seam by means of separate bords one above the other?—No.
26. You are simply taking out your 20 ft. and leaving the balance?—Yes.
27. Keeping 9 ft. of coal above you?—Yes. Boreholes are put up every 5 yards.
28. Now take the Taupiri Extended Mine: you are also manager of that?—Yes.
29. What have you to say about the Taupiri Extended?—What we would call the water-free coal has all been worked up to the present time, and now we have to go to the dip to win out fresh coal, and we are seizing the slack time during summer to drive these dips and cut through for the coming winter.
30. What about the ventilation of the mine?—We have had it on a good system. It is straight in from the dip, and there is a good return.
31. Are there two shafts there?—Yes.
32. Do you expect to get a number of men to work there shortly?—In another three months I expect to be able to place perhaps thirty men there.
33. Now take the Taupiri Reserve Mine: what can you tell us about that?—The mine is entered by a dip adit. The seam dips at an average rate of 1 in 7. It dips under the land for a certain portion of the way until sufficient cover is obtained to enter under the lake in safety. As soon as that is obtained the dip drive is continued in a direction towards the centre of the lake. At stated distances levels are turned away from this dip and bords worked to the rise off these levels.
34. How many men have you got there?—About thirty underground.
35. What about the ventilation there?—Ventilation is taken direct to the face by the shortest possible route.
36. Can you not do something to improve it?—We are not going to do anything at present—*i.e.*, in the way of erecting any mechanical means of ventilation. I do not consider the air deficient. The mine was examined during the worst period of the day, just as the men were knocking off work, and all the steam from men and horses, the smoke from their lamps, and the accumulation of powder-smoke was most felt. In addition to this it was a very hot day, and the outside atmosphere at a high temperature.
37. What about means of escape in event of accident?—There are two ways out of the mine.
38. Two known ways to the men?—Yes; to men who have been there for any time.
39. Is it not a fact that some men may work for months in a mine and not know the run of it at all?—Not in these small mines.
40. Who is the secretary of your company?—Mr. Franz Scherff, of Fort Street, Auckland.
41. *Mr. Lomas.*] You said you proposed having two returns in Ralph's Mine: are they to be one on each side of the main dip?—I am not aware that I said that we intended to have two returns, but at the same time we do, as a matter of fact. The air will enter on two sides of the upcast.
42. Will the two returns run parallel with the dip?—No; one will run away from the dip altogether. It will be from the level of the shaft. The air will split at the top of the dip.
43. At Taupiri Reserve do you think the steam from the pipes and pump sufficient to ventilate that mine?—Yes; if we extend the dip further down I should like to test it first. We had two splits of the air at one time, but we found it more advantageous to have only the one split.
44. *Mr. Proud.*] When do you expect to have that place holed to enable you to have the air split at the face?—In three weeks or a month.
45. And how long will it be before you get the fan erected?—It will be about the same time.
46. Two return airways are very much recommended at Home, are they not?—Yes, in large collieries.
47. Is there no danger of the small coal left in the mine becoming oxidized at all?—We do not consider there is any danger from the small quantity which is left in the mine.
48. Would it not be well if you put up a jigger-screen here so that you could manufacture different kinds of coal?—It is all a question of pounds, shillings, and pence. We are putting

up extra boiler-power to enable us to burn the slack. There is nothing to induce us to put up appliances to use the smudge.

49. All the smudge that goes into the lake is wasted, is it not?—Yes. At Kimihia we extract the nuts.

50. Do you not think it would pay you to manufacture other kinds of coal? For instance, could you not adopt vibratory screens and coal-cleaning belts, so that you could manufacture house, steam, cobbles, nuts, peas, small, and duff, in order that you might supply most kinds of coal required?—There is no market. There is no market even for the nuts.

51. You have no command of high-pressure water in the event of an accident, such as a fire?—We have fire hoses and pumps at the mine. We have the feed pumps of the boilers, which will pump against 100 lb. pressure.

52. *The Chairman.*] Is there anything you would like to say on your account?—The only thing I would like to say is that it would be an advantage if anything could be done for the company in the way of finding a market for slack by manufacturing it into briquettes. That is the only way I can see of utilising the small coal.

53. *Mr. Lomas.*] Do you know any reason why the Government is not consuming your coal?—I am told that the sparks from the coal have fired the grass along the line.

ABRAHAM DORRICOTT, Underviewer, examined.

1. *The Chairman.*] You are underviewer at which mine?—At Ralph's.

2. How long have you been there?—Ever since it commenced, about two years and a half.

3. Do you go down the mine every morning?—Yes, at a quarter to 7.

4. And report in writing and sign the report on your return?—Yes. I let the men down and then come up. As soon as they are down I make my report.

5. What is, approximately, the output of the mine?—About 170 tons a day.

6. Have you found any difficulty with the ventilation?—We did a little while ago, before we got the air-shaft widened. We are making arrangements for a fan, and have the brickwork and foundation ready now.

7. If there is any deficiency in that particular it will be remedied very shortly?—Yes.

8. The mine is right under the Waikato River?—Yes.

9. Have you ever noticed any sign of danger from the river?—Not the slightest.

10. Supposing there was a fall pretty close to the shaft in the heading, how would the men get out?—By the return airway.

11. Do they all know that, do you think?—Yes.

12. Do you not think there are some of the men who have never been there in their lives?—There may be, but the bords are fenced up, and there is a clear track for them.

13. Do you think the pipes would stop them much?—We have two roads to the air-shaft; one is blocked at present, but we shall have it clear in a fortnight. There is a very good outlet now.

14. What is the thickness of the seam?—It varies from 16 ft. down to 40 ft.

15. Your heading is what height?—From 7 ft. to 8 ft.

16. What height are your bords?—About 18 ft. or 19 ft. We do not go over 20 ft. We make sure that there is not less than 9 ft. of coal above us.

17. You are well over the other side of the river now?—Yes; a few chains under the banks on the other side.

18. *Mr. Lomas.*] You said that there were two roads to the upcast shaft: are these two roads on each side?—Yes.

19. You have one intake and two returns?—Yes. It is not a return at present, because we have a door to stop it; but this door slides, and we can get through.

20. Has there been any case where you have worked one bord above another bord?—No, not in Ralph's Mine.

21. What is that place where you go up ladders: is that not a bord?—Yes; but one is not directly over the other: the strata rises about 1 in 6 there.

22. Do you work many bords in that way?—No, only three or four.

23. How many feet are there above the bords below—vertically?—About 24 ft. They are not directly above each other.

24. What would be the difference, if they were above each other, from the top of the lower bord to the bottom of the top bord?—About 10 ft.

25. How many levels have you in that mine working from the main dip?—There are two levels.

26. Is the air split at all?—It is not split.

27. Have you any overcast?—We had, but it is not in use at present.

28. Would it be an advantage to the men, say in a top level, if they had the air coming into them instead of going out?—It would be an advantage, but we cannot do it very well.

29. Where and how do you split the air?—We have regulators, with so much space open in the different levels.

30. Do you not divide it in the main dip?—Yes, and regulate it in the returns.

31. The men in the top heading, then, get all the powder-smoke from the bottom heading?—No; it is the other way about. The air goes into the top heading first and works down to the bottom heading, and through there into the return.

32. *Mr. Proud.*] You say the air is in too small a quantity to split?—We have a double quantity for the men. We have something like seventy men in the mine, and about 1,500 ft. travelling per minute.

ALFRED TURNER, Underviewer, examined.

1. *The Chairman.*] You are an underviewer of which mine?—The Extended.
2. How long have you been in that position?—About two years and two months.
3. How many men are there working there now?—Two pairs.
4. How is that?—They are opening up what you might call a new seam.
5. Are the other workings worked out?—Yes, with the exception of the pillars. There is bottom coal that could be worked out up the south district. As we work that bottom coal out we may get into new ground.
6. The mine is worked by a shaft?—Yes.
7. How is the ventilation?—The ventilation, the last time I took the air, was 14,000 cubic feet a minute.
8. Where did you take it?—It was taken in two places, up the south jig and what we call the dip.
9. How far from the head of the heading?—The south was taken from about 50 yards from the winding-shaft, and the other about 70 yards down the dip. In the return it was about the same. The two added together make the 14,000.
10. How long ago is it since the full complement of men were employed?—Three months exactly.
11. Do you post any notice up as to the quantity of air which is travelling through the mine?—I do not think it is necessary, except in our report.
12. Do you visit the mine every morning?—Yes.
13. And make a written report and sign it before the men go down?—Yes; I make an examination before the men go near, then I see the men at the pit-bottom, and go up after reporting to them that all is right. I then go up and make the report.
14. How soon after the men are down do you make the report: within an hour?—Yes; soon after 8 o'clock.
15. What is the quantity of coal that has been turned out at the Extended per month?—About 1,500 tons a week when in full work.
16. What provision is made for the escape of the men in case of accident: how do they get out?—There is only one way out. They would have to make for the shaft-bottom from their places.
17. Is there no return airway?—Yes.
18. Is that parallel with the heading?—Yes.
19. Could they go along there?—Yes.
20. Are there any steam-pipes there?—Yes.
21. Would that affect their travelling at all?—It would not affect the travelling, except that it is warmer.
22. You think the men will have no difficulty in getting out?—No, if they know the way. I could spin out just as quickly as by the main airway; but there is no occasion to go out that way, because it would be more difficult for the miners than in the main drive, on account of them not knowing the way.
23. But suppose there was a fall in the main drive, how would the men get out?—They could get out through the return we have spoken of; but the men do not know it, except myself. At any rate, it is not known to most of the men. We are going to connect the dip with the west jig as soon as possible.
24. Which way are you driving?—Towards the river.
25. You are running about parallel to Ralph's Mine?—Yes, somewhere about it. There is a difference in the bearing. Ours is on 74° N.W., and theirs is 47° N.W.
26. *Mr. Lomas.*] You said you measured the air about 50 yards from the winding-shaft?—Yes.
27. What extent of workings is there beyond that 50 yards?—There is a good bit.
28. How much does that air have to be distributed supposing all those places were working?—Perhaps over ten bords.
29. Was that air split at all and divided among the men?—I cannot speak for that district, because I was not deputy at that time. At the same time I can tell you that it was partitioned off every cut through. It was not split after that. It went up this jig on to all the places.
30. In the dip you measured it about 70 yards from the shaft?—Yes.
31. How far is your dip from the face?—Roughly speaking, it is about 14 chains.
32. What opportunities are there for this air escaping between 70 yards and the face?—Only the small amount—the stoppings leak.
33. What is the return from the dip?—It will be about 14,000 ft., as I have said.
34. What is the return: is it parallel to the heading?—Yes.
35. *Mr. Proud.*] Have you a good current in the inmost places?—Yes; we put a cut-through every chain or so.
36. *The Chairman.*] I suppose, as a matter of fact, the miners go there for years and never go out of their particular bords?—Yes.
37. *Mr. Lomas.*] Have you ever seen any gas in the mine?—Yes.
38. In any quantity?—The most I did see was about fifteen months ago in the dip. I was going up a ladder in a bench-bord and found it with my lamp. There was about 7 ft. or 8 ft. of gas.
39. What measures did you take?—I stopped the men from going in, and put up a stop-board.
40. You did not put up any brattice to get the gas out?—No; I fenced it off so that no one could get in.

41. Were any bords working near to that place?—No, not on that side.
42. *The Chairman.*] Do you use powder in the mine?—Yes.
43. *Mr. Lomas.*] Did you allow men cutting through to that place to use powder?—No.

WILLIAM SAMUEL EVANS, Underviewer, examined.

1. *The Chairman.*] Where are you engaged?—I am underviewer, or deputy, at Kimihia.
2. How long have you been there?—About nine months.
3. How many men are employed there?—About forty-four miners, when there are no holidays.
4. Do you inspect the mine every morning?—Yes.
5. And make a written report and sign it before the men go in?—Yes. My strict instructions from the manager are to examine every place carefully and to report on them.
6. Have you found any difficulty in working the mine?—Nothing unusual.
7. Have you had any difficulty about the ventilation?—Our ventilation is fairly good. Some of our places are a little behind, but we are getting them up a bit. We are driving slits, or stentons.
8. Are the men complaining at all about the ventilation?—Not at Kimihia. They know the circumstances, and that when we get through the soft coal we shall be all right.
9. Supposing anything happened in the way of a fall or rush of water, how would the men get out?—We have two return roadways.
10. Are those roadways well known to the men?—Yes; I have notified the new miners in order to show them through.
11. Are you under the lake?—Yes.
12. Is there any sign of dripping?—No. At the present time we have never less than 16 ft. of cover—there is nothing under 10 ft.
13. How far are the bords apart?—8 yards, and the stentons 10 yards to the first one, and 28 to 30 yards to the second holes.
14. How do you get the air down the shaft?—We get it down through a dip.
15. What depth is the seam?—It is like two seams divided. The bottom seam is about 8 ft., but it is thickened out in the under-seam 12 ft. The height of our heading is 7 ft. 6 in.
16. You are not talking of a bord beneath another bord?—We are in a sense. The mine is laid out to break 5 chains apart. It has an incline of 1 in 7.
17. Where is your air-shaft?—It is parallel to the outlet of the shaft. It is about 2 chains.
18. Do you gauge the air?—Yes, regularly. The surveyors assist me in that.
19. Do you post it up?—Not in the mine.
20. What do you allow each man?—About 300 ft., I think, for each man.
21. Have you any idea of the depth of water in the lake?—There is an average of 9 ft., I think.
22. And in the deepest part?—The deepest is about 11 ft. over our workings.
23. What cover have you got?—I think it is estimated at about 165 ft. to 200 ft. at the bottom of the level.
24. Is there a good return road?—Yes; there are four independent roads that I know. The miners as a body know of about three.
25. What size is the return airway?—In some places it is very large, but on an average it is 7 ft. by 7 ft. It is mostly through stentons.
26. What is the size of the heading?—It varies; I think it is now 7 ft. by 6 ft. 7 in.
27. Do you use bratticed cloth at all?—Regularly.
28. How far apart?—On every opening; but when the opening is done we put up a wooden stopping. We caulk and clay them.
29. What do the men make a day?—I think a fair miner makes about 10s.
30. Do you think a good average is 10s.?—A fair miner could make that.
31. Are the men you have here fair workers?—I do not say they are all making it. There are more men than we can supply skips for.
32. What do you think they do make?—They only work about eight days a fortnight, and are making between 6s. and 9s. a day.
33. *Mr. Lomas.*] You said just now you had measured the air going in, and had 300 ft. to each man?—Yes.
34. How far from the face of the dip did you measure it?—About 11 yards.
35. Is that where you measure it for the whole of the men?—Yes.
36. How far has the air to travel to the farthest point?—About 25 chains.
37. How much air do you think will be lost in travelling that length?—None until we get about 14 chains, when we lose a little because of the bratticing, which the wheelers lift to a certain extent when going up and down. The miners in that bord receive the escaped air.
38. Have you tested it in the working-faces?—No; we have tested it about 10 chains from the dip, but not in the working-face.
39. Have you measured it up to the last bord to see whether the air can go round?—No.
40. You admit that a lot of this air is lost?—Yes.
41. Then, how can the men get 300 ft. if there is only 300 ft. where you state?—We are allowed to use a portion. If a portion of this air did not escape the men at the furthest point would have 15,000 ft.
42. You said there were only 300 ft. per man at a particular place at which you measured it?—I am not positive about the air at the far end, as I have not measured it there.
43. The mine is pretty hot?—It is rather warm just now.
44. You do not send fresh air into each section?—No.

45. You told us there were three or four ways for the men to get out: are these all parallel with the main dip heading?—Yes. One is a disused bord very nearly parallel.

46. What means have you for ventilating the mine?—There are no artificial means. While the pump is working we get more.

47. Do you consider the steam from the pipes and pump is sufficient without artificial means in the shape of a furnace or fan?—I think it is sufficient.

48. In the event of anything serious happening in the main dip, do you think it would be difficult for the men to get out, or would the heat or steam overcome them?—I do not think so. If the main airway was completely choked the men would soon get to know it. I think there would be sufficient air to carry it through if it was completely blocked.

49. In the bottoms of the bords where the drop-sheets are narrow, would there be less air lost if you had double drop-sheets some yards away?—There is no doubt they would assist.

50. You admit that when a truck goes through the bratticed cloth it lets a lot of air through?—Yes, you lose that air. Two drop-sheets instead of one would certainly affect that.

51. *Mr. Proud.*] You have return airways?—Yes.

52. Is there a good current going through?—Yes; but we lose a portion of the air. It is fairly warm in the evening on account of the powder-smoke.

53. You think the men could escape by the return airway in the event of any accident?—Yes; in the case of any accident in the main dip. The escape is fairly good.

ROBERT GRUNDY, Miner, examined.

1. *The Chairman.*] What are you engaged at?—I am now check-weighing on behalf of the men employed at the Huntly collieries. I check for all three mines.

2. You are also president of your union?—Yes, the Waikato Coal-miners' Industrial Union of Workers.

3. How long have you been engaged in this district?—Between six and seven years.

4. And which mine have you chiefly worked at?—Kimihia; but I have worked a considerable time at the Taupiri Extended.

5. As president of your union, what matters do you wish chiefly to bring before this Commission?—There is considerable dissatisfaction at present as to the way in which the mine is ventilated.

6. Which mine do you refer to?—Both Ralph's and the Kimihia Mine.

7. What about the Extended?—That is practically shut down, and there are only four men working there.

8. Tell the Commission about the ventilation?—The chief grievance seems to be that the air is not split sufficiently, and the slits are not driven close enough—that is, the stentons are not cut close enough to each other. The men are too far from the current before there is another current to a face. There is also so much blasting in the district that it is very injurious to the miners' health. We have talked the matter over and consider that 15 yards in front of the stenton is far enough unless it is bratticed, because it is very unhealthy to work in the powder-smoke where there is so much blasting going on.

9. Is there much blasting going on?—Yes.

10. Is not the ventilation being attended to at the present time?—Yes; they are widening the air-shaft, but it does not seem to be distributed so much as it ought to be. There are complaints about it not being split.

11. Is that the only recommendation you would make—that the stentons should be made closer together?—If they were split into districts there would not be so much carbonic-acid gas from all the rest of the men.

12. Is that all you can say about the ventilation?—Yes. The ventilation does not seem to be bad except for that.

13. Has that matter been represented to the mine-owners?—No; there have only been individual complaints made to the deputy.

14. How long has the union been formed?—For about fifteen or eighteen months.

15. During that period have you made any combined representations to the owners?—No; we have had other things to contend with.

16. Have you known any case where the health of any of the men has been materially affected by this want of ventilation?—Yes; I have had to drag my mate out, and get him water, and I have had my mate go home sick and unable to go to his work. Another man was off for a fortnight, through working in a place which ought to have been cut through before.

17. What mine was that in?—The drag-out case was at the Extended; the others at Kimihia.

18. Do you know anything about the Extended?—Yes; I have seen it bad in the Extended. They have artificial ventilation there, but they seem to have driven their slits or stentons large, so that they could not block them up. I do not think the stentons should be driven more than 6 ft. by 6 ft., because the ventilation instead of driving to the face escapes to the stentons.

19. Your remarks as to ventilation apply chiefly to Kimihia?—Yes.

20. Putting the question of ventilation on one side, are all due precautions taken to insure the safety of the men employed in the mines?—Yes, they seem to be very careful. They are not mines where there is much timber used, so there is no complaint on that point.

21. Are the roads properly attended to?—Yes.

22. And disused shafts properly fenced off?—There seems to be something wrong at the bottom of Ralph's shaft. There seems to be rather a dangerous way of taking up the race.

23. How are the men paid; take the hewers first?—By tonnage.

24. What are they paid?—2s. 9d. for household coal, and 2s. 3d. for steam.

25. What are the men able to make per diem?—Their average when running fair, with no stoppage, is about 9s. a day.

26. How many days do they average a fortnight?—From seven to eight in the summer time.

27. How do you account for that small number of days?—Slackness of trade.

28. What do they work in the winter time?—They might average eight days through the year. Sometimes, for a couple of months, there is not an idle day, and at other times there might be ten or eleven idle days in a month. But you might call it practically full time during the winter months.

29. Do the men get any concessions in the way of dwellings?—No, they cannot buy a bit of land to put a house on unless they pay an extortionate price for it.

30. The men live in the cottages along the banks of the river?—Yes.

31. To whom do the cottages belong?—To the company.

32. What rent do they pay for them?—5s. a week for four small rooms, and 3s. a week for two or three rooms.

33. How much space do they get for a garden?—A quarter of an acre to each cottage.

34. *Mr. Lomas.*] What distance are the stentons apart?—They are no regular distance apart. I have seen them 60 yards.

35. What is the general run?—They have no general run.

36. Suppose they were working a bord heading, what would be the distance there?—They do not drive more than the one heading. They make the first stenton in the bord act as back-heading. I have seen them go 70 yards without turning a bord.

37. Suppose they broke a bord away at the face?—I have several times seen them break a bord away and miss one, and then seen them bring the stenton back again.

38. They start three or four bords all at once?—Yes.

39. How far do you drive the bords up before putting a stenton through?—About 7 yards. The general thing is that perhaps it will go the length of two bords. It is about 24 yards: 7 yards of a pillar, and a bord equal to 12 yards; two bords equal to 24 yards.

40. How far do they drive a bord up before putting a stenton through to the next bord?—From 9 to 10 yards.

41. And 7 yards back?—Yes.

42. And that is 40 yards before getting a stenton through?—Yes.

43. And, in the meantime, you are driving the heading all the time?—Yes.

44. Is it a practice now to drive these stentons wide?—No; the present manager agrees to them going narrow. He does not seem to view with favour the wide stentons.

45. In the event of driving them wide, do they put them through narrow before going to the next bord?—It has been done when going through a pillar twice its ordinary size.

46. You said something about not bratticing; do you think the brattice would be of any service with the present method of ventilating the mine?—Yes.

47. Would it interfere with the ventilation?—They would want more pressure if they used more bratticing.

48. Have you been through the return air-courses at all in any of the mines?—Yes, at Kimihia.

49. Are they clean, and is there no obstruction?—They are not so very bad. It is over two years and a half since I was through.

50. Were they fairly large?—6 ft. by 6 ft., but there were lots of steam-pipes in.

51. Are they as large as the intake?—No.

52. Are they in the habit of putting overcasts in to separate the mine?—They used to do so in Kimihia years ago, but since going down to the present levels they do not seem to have done so.

53. Is the air divided at all in the Kimihia Mine?—I do not know from examining it myself.

54. In that case the men in the top heading would get the best air, and the others the worst?—Yes.

55. Are there separate travelling-roads from the main incline for the men?—No, they travel the incline.

56. Do they travel that when the rope is going?—No, it is prohibited by the manager.

57. Do you consider the mines are safe?—Generally speaking, I think they are as safe as you can expect, but at the same time I think there ought to be some means of escape instead of going up the main road in the event of any trouble. The unexpected does happen sometimes.

58. Would it be difficult to get up the return air-course on account of the steam-pipes being there?—Yes.

59. Apart from the heat, do they interfere with the traffic?—Yes, they are not exactly against the side.

60. What do they rest on?—Mostly on short rails stuck in the sides in drilled holes.

61. Have you ever known anything to give way in the roof in a mine which would indicate any danger?—It has a fireclay roof, and it is liable to run or fret if the coal is exposed, and if any coal falls it has to be filled up again. They pack it with clay.

62. What thickness is the fireclay on the top, generally?—I was in a place where it fell at one time, and was working along with another man about three weeks at it. I dare say it would be 6 ft. or 7 ft. thick, and there would be a bastard sandstone above it.

63. Is there any quicksand here?—There is quicksand all about the Huntly district.

64. Suppose anything were to break through, do you think it would be possible for the men to escape?—At the present I do not.

65. Not at all?—No.

66. Do the men truck their coal from the face?—No. All the coal is brought by truckers.

67. *Mr. Proud.*] Can workers find their way out by the return airways?—I do not think one

out of ten could. I think there ought to be an extra travelling-way, and the men ought to be compelled to travel it once a week.

68. You think the ventilation is feeble in the far corners?—Yes.

69. And could be improved by splitting?—Yes.

70. Would you recommend two return airways?—Yes, and one of them a travelling-way.

71. Do you think there is any danger of falling into the quicksand at any time?—No, because I think they take precautions by boring in the roof to see if they have proper coal above them. It is a very good coal for standing.

72. Is all the smudge taken out of the pit?—Yes, it is all cleaned up.

73. *The Chairman.*] Have you had any cases before the Conciliation Board here?—Yes.

74. Were they satisfactorily settled?—Yes.

75. How many cases had you?—Only one.

JAMES EDWARD WALLACE examined.

1. *The Chairman.*] How do you describe yourself at the present time?—I am a coal-miner.

2. Where are you employed?—At the Kimihia Mine.

3. You are also acting as secretary of the union?—Yes, of the Huntly Miners' Union.

4. I would like you to make a statement of anything you would like to recommend to the Commissioners in regard to the mines generally?—The miners complain of insufficient air at Kimihia. I am working at the first bord, and we get the return air from all the other bords.

5. How might that be best remedied?—I cannot say anything more than what Mr. Grundy has stated in respect to that—namely, by paying particular attention to the slits or stentons, and putting them in proper places.

6. Is the Kimihia Mine under a lake?—Yes, under the Kimihia Lake.

7. Are you satisfied that it is safe?—Yes, I think so. There appears to have been some doubts about the matter, because they have been filling up some of the old workings with clay. I noticed where one of the cross-pieces had broken they filled that in, and they seemed to be doing their best to insure the safety of the men. With the return air-course you are able to get through; but, in the case of anything happening, I agree with Mr. Grundy that the men would not be able to get through. I was taken through by the deputy. You are taking a circuitous route, and unless you had a knowledge of the locality you would have a great deal of trouble in getting out.

8. You say there is not sufficient provision made for escape in the case of trouble arising?—Yes, if they got in trouble they would not know their way out.

9. And you suggest there ought to be a return airway, as well as the place known as the heading?—Yes. I was in Ralph's Mine twelve months, and in the Kimihia Mine twelve months. Ralph's Mine is a trap, and if anything happens you could not get out. There is only one exit.

10. Are you satisfied with the wages?—I am not satisfied with the rate per ton. I think we are entitled to more money per ton for our work. It is hard work and should be better paid for.

11. What can you make a day at it?—That depends upon the way in which we are supplied with skips or trucks.

12. Are you frequently idle for the want of skips?—For want of railway wagons and orders, and through the winding machinery going wrong.

13. You say the rate per skip is satisfactory, I understand, but the constancy of the work is unsatisfactory?—I do not think the rate per ton, or hewing rate, is satisfactory, considering what we have to find ourselves in the way of lights, tools, and ammunition.

14. What ammunition do you use?—Only powder.

15. Now, as to the constancy of the work?—In the summer time if we can get four days' work a week we think we have done well. In the winter, if we are off a day every three weeks, or half a day every Saturday, we are satisfied as far as it goes.

16. What can a man earn, supposing he is properly supplied with skips and every necessity, in the eight hours at the present rate, generally speaking?—With his expenses, between 8s. 6d. and 9s. per day. If he had a good day he would perhaps make 12s. or 13s.

17. Take a favourable, but not an exceptional day?—It would be about 9s. for an average day.

18. How much would he have to pay out of that for ammunition and lighting?—About 9d. a day for ammunition, and 2d. for lighting. The company sharpen our tools. The cost might come to about 1s. per day.

19. Your wages would be reduced to 8s. per day net?—Yes.

20. Is £2 10s. a week the highest wage made?—Not the highest wage, but at the present it is a very good average. The men are satisfied if they can get that clear in a fortnight. If they have a very good day, you could put another 2s. on it.

21. For good days you might add 1s. per day, I suppose, which would bring it to 9s. per day?—Yes.

22. You are not at all alarmed about the lake at Kimihia, or the river at Ralph's?—No, I never had any reason to be.

23. Is all the small coal or slack cleaned out?—All the coal goes into the boxes at Kimihia, but at Ralph's it is not so.

24. Do you think that Kimihia Mine especially is unsafe through the want of a return airway?—At present it is.

25. And Ralph's Mine you say is a trap?—It cannot be anything else, because everything is so low down, and there is only one shaft.

26. *Mr. Proud.*] Mr. Grundy said that a man was overcome by carbonic-acid gas?—Yes.

27. Do you not think it would be better to test the return airway?—As a miner, I am not supposed to know what carbonic-acid gas is.

28. But as a chemist?—It would be a good thing to test the return airways. That only occurs where the air is very thick, and you taste it and have a horrible sensation in your head. We have had to go out in Ralph's Mine to lay-by in plenty of instances. I have seen a lot of men go home through it.

29. *The Chairman.*] Was anything done in that case?—They used to say it was impossible to do it at present, but that they would try and remedy it. There was a heading and three bords just got in. One man fired a hole in the morning and the smoke could not get away. You have to work in the smoke, and you cannot see the riddle in your hand. We have had to put up with that repeatedly, and had to go out and get air until the smoke got away. I would like to say that up to a little while ago our coal was used by the Government for locomotive purposes, but we have lost the orders for the time being. It meant 200 tons a week to Huntly, and I think the Government might split the difference. They have ceased to take it, we are given to understand, because it is inflammable, and it is said that the grass is fired through its use; but down South the grass has often been fired. The general impression is that because of the inflammable character of the coal it is barred on the railways.

30. *Mr. Proud.*] What is the average, per fortnight, earned by the men?—If two men working together got £5 each for a fortnight they would consider themselves very lucky.

ANDREW GEARY, Miner, examined.

1. *The Chairman.*] You are at present working in which mine?—Kimihia.

2. How long have you been working there?—Since the Extended stopped—three months. I had worked there previously at different times.

3. You are now representing a body of men working there?—Yes.

4. What do you wish to tell us about the mine?—As regards ventilation, I agree with what Mr. Grundy told you. If they split that air they would want a furnace or fan, which is needed because the outlet is smaller than the intake. You can tell at once how the air is; and if the wind is blowing from the south-east you can feel the effect, as the air is affected.

5. What have you to say about the means of escape in case of accident?—I bear out the statements made by Mr. Wallace and Mr. Grundy.

6. Have you anything to say with regard to pay?—I have been working in the Extended. I took the average of my wages, including yard-work, and my pay is £101 for twelve months. Last summer was better than the previous one, since the amalgamation took place.

7. The rate of pay was settled by the Conciliation Board?—Yes. I have worked in New South Wales coal-mines and in the West Coast coal-mines, and I consider this is the hardest coal I have worked at. You have to work all the time, and cannot spare time to get your food. You are working all the time to get 9s. a day. There are men who do not get that, because they are not in good places. There are men in the headings who average 10s. a day, with hard work. As regards boring in these headings, they do not keep a borehole in advance of them, but if they kept on the bottom they would get on better.

8. *Mr. Lomas.*] Do they timber the ground where those faults are?—It is a roll, not a fault.

9. Do they timber that?—They put a prop up now and again.

10. Do you consider that a man in a heading should earn more?—Yes, 2s.; because it is wet work. You may get a miss shoot, in consequence of the water wetting it.

11. Do you know of any cases where they worked a bord above a bord?—Yes, in Ralph's Mine.

12. Many of them?—I have seen one not far from the main shaft.

13. What thickness of coal would there now be there between the bords?—I could not give you any idea.

14. Is the air sufficient?—I have never seen the amount of air required by the Act—100 cubic feet per man.

JAMES MCLELLAN, Miner, examined.

1. *The Chairman.*] You are a miner working at which mine?—The Extended.

2. You are one of a number?—Yes; four at present are employed in the mine.

3. What are you doing there?—Driving a dip-heading, and getting coal.

4. What quantity do you get per week?—We average ten skips a day.

5. Each skip averaging about what?—12 cwt.

6. This is worked by a shaft?—Yes.

7. What distance are you away from the shaft?—16 chains.

8. Who is the mine inspected by?—By the deputy, Alfred Turner.

9. Is he employed solely in the mine?—Yes.

10. Is the ventilation all right?—It is very fair. There are only four of us there.

11. But supposing there were more men working?—Then they would need more air.

12. How long is it since a number of men were employed there?—It is three months since they left.

13. How many were there then?—I think about eighteen pairs—thirty-six.

14. And what about the ventilation for them then?—Part of the men were up in another direction.

15. Do you know why the company left off employing the men?—The coal was getting very scarce, and it was mainly prospecting that they were doing.

16. Is the coal hard?—Yes, fairly strong.

17. And what was it like where the other men were working?—It was not very strong, but it was getting very thin, and it did not pay them to work it.

18. The mine is under the lake?—A portion of it is.

19. How many means of exit are there?—At the present time the men have a very poor chance of getting out if an accident happens. There is only the main dip for them to go up, and all the other workings are on the high side of us, and there is no other way to get out. If there was a break in of water you would be jammed there.

20. What about the working-places?—The places that have been worked are above our level, and are under the lake, and if anything happens they would flood us. There is a good thickness of coal.

21. What is the thickness of the roof?—We are supposed to leave 9 ft. of the roof.

22. Would the reason for leaving off work be because the water might come through?—No.

23. The Extended is driven under the Waikato River?—Yes.

24. Have they been leaving the mine pretty clear of slack?—There is none left in.

25. How are you paid?—2s. a ton down there.

26. What would that enable you to make?—We average about 9s. a day with the yardage and the coal.

27. What is the highest rate you have made?—I have made 11s., but the average is 9s.

28. 11s. a day is the highest you have ever made?—Yes; about the highest.

29. How long do you say you have been here?—Sixteen years in the district.

30. Have you worked in any other mine?—Yes? but it was a good while ago.

31. But in any other district?—I worked on the West Coast a bit, on Denniston Hill. I left Denniston Hill to come here. I have worked in mines in the Old Country since I was eight years of age.

32. Is there anything you think requires alteration in the matter of working?—I think it would be a very good plan to drive a place back from where we are working at present for purposes of escape.

33. *Mr. Lomas.*] Is it not wet where you are working?—Yes.

34. Do you get anything extra for water?—We get 2s. a day for pumping.

35. Do you think the men deserve more for working in a wet heading?—Yes.

36. That is usual, is it not?—Yes.

37. Are you acquainted with the other mines here?—I would rather not speak of them, because it is long since I worked at them.

38. Is it customary to have one or two drop-sheets some yards away from each other on the working faces?—I do not think you will find many drop-sheets here at all.

39. In this mine where the pumps are used, is the engine always down at the bottom of the workings to force the water up—take Kimihia?—Yes.

40. Supposing a serious fall happened and blocked up that space, would it be possible, owing to the steam-pipes, for the men to get out alive?—I do not think they would get out alive.

41. Do you think that is the reason why there should be a proper travelling-way?—Yes.

42. That place is really an intake?—Yes.

43. Should the stentons between the main dip, where the rope goes down, and the travelling-road always be open?—Yes.

44. At present in this place is the return air-road always parallel with the main dip?—Yes.

45. What tools do the men have to find?—Picks, boring-machines, and everything that is there.

46. Do you know anything about the depth of the lake?—No.

47. Do the miners themselves regularly inspect the mine, as provided by the Coal-mines Act?—They have since the union was formed here.

48. Every month?—No, it is only every three months.

49. Do you know of any place in any of the mines where the quantity of air travelling in the district is registered on a board—the number of feet?—No.

50. Do you know of any slack coal getting on fire?—Yes, on the other side of the river. I think it was due to the slack coal.

51. Do you consider the catches on the cages are a good and safe thing?—Yes.

52. Have you ever heard of a cage being stuck in the mine by a sudden reverse of the engine?—No; but I have seen them tested, and they acted very well.

53. What did they test them with?—With a full skip in the cage.

54. *Mr. Proud.*] Do you receive any consideration for wet working?—Yes, 1s. 6d. a yard extra.

55. Do you often see the Government Inspector?—Yes, I think pretty well every three months.

56. Do you think that is sufficient?—Yes, I should say so, so far as I know.

David Molesworth, Miner, examined.

1. *The Chairman.*] In which mine are you engaged?—In Ralph's at present.

2. How long have you been working there?—I have been working in the property for many years, but in this mine about five years.

3. Are you satisfied that the mine is thoroughly inspected each morning before the men are allowed to go in?—I am.

4. Do you think the work of inspection is done in a thorough way?—I think so.

5. Do you think that every necessary precaution is taken to insure the safety of the workmen?—I do at present. I mean, that all precautions are duly taken since the existence of the union.

6. The mine was shut down for five years, was it not?—Yes.

7. Did you start to work when it was resumed?—No; I was here in the district working at the Extended when Ralph's Mine first started.

8. Have you worked in Kimihia?—Yes. I have worked at all the mines in the district, twenty years altogether.

9. What have you to say about the ventilation of Ralph's Mine?—There are some parts just where I am working where the ventilation is not what it really should be. I was working in a top level from the shaft far in the coal. The headings are driven a long way, and all the smoke stands there all day.

10. You do not consult the plans of the workings?—No.

11. And you do not know where you are according to the plans?—No.

12. Now, as to the means of exit in case of accident: what have you to say as to that?—There seems to be a difficulty. All the men are not acquainted with the roads there. There appears to be only one way out of that dip.

13. So that if anything went wrong they would be caught?—I think so.

14. What do you think you average a week in wages?—I am getting the worse for wear now. I do not think I have averaged 8s. a day.

15. What have you averaged a week—£2 10s.?—I do not think so.

16. Do you think you have averaged £2 5s. a week?—It is as much as I have done, taking winter and summer together.

17. Have you had much broken time or many idle days?—Any amount.

18. If you were fully occupied for, say, forty-eight hours a week, what do you think you could average?—I should say my average would be about 7s. 8d. a day.

19. How much money do you suppose you earn for the whole twelve months—did you make £100?—No.

20. Did you ever add up all your fortnightly pays?—I have got my pays for years.

21. What is your average fortnightly pay-sheet?—I have never gone into the matter to be able to tell that.

22. If I gave you £100 for your twelve months' earnings would you be willing to give me the difference?—No, I should not be prepared to do that. There might be a difference, and you might have the best of the bargain.

23. Do you consider the mine a safe one?—As far as the mine itself is concerned, I feel myself very safe. Since the existence of the union boreholes have been put up in various places.

24. Was the management careless before the formation of the union?—Yes; they were not half so careful as they are now.

25. Were there any accidents?—There have been very few accidents. There is no timber used, and the pillars are good and strong.

26. Have you mined anywhere else?—No; this is practically where I learned my mining.

27. Is there much coal lost by inability to remove it?—Yes, by leaving the pillars.

28. What percentage of it, do you suppose?—Quite as much as they take out, or more.

29. Do you think the rate you are paid is a fair one?—I think it would stand a little more, considering the labour and loss attached to it. If all the mines were worked on the same principle as Kimihia—screen the coal on the top—I think it would be fairer.

30. Is there any refuse left in Ralph's Mine?—Yes; when they take up the rails all the ballasting is left.

31. Do you attach any risk to that?—There is a risk of fire arising. If there is any large amount of that stuff left it might fire.

32. Would the mine be any better for the quantity left in being removed?—Yes; there would be no danger if it was taken out. In shifting rails or sleepers the men throw the stuff on one side, and there is danger that it may fire.

[N.B.—For additional evidence *re* these mines, see the evidence of Franz Scherff, Auckland, 7th January, 1901.]

AUCKLAND.

MONDAY, 7TH JANUARY, 1901.

ERNEST GEORGE ROBERT FORD, Secretary of the Ngunguru Coal-mines (Limited), examined.

1. *The Chairman.*] The Ngunguru Coal-mines (Limited) comprise what particular properties?—About 2,000 acres on the Kiripaka side of Ngunguru.

2. What is the capital of the company?—£10,000, in 20,000 shares of 10s. each, with 600 shares fully paid-up, providing a working capital of £3,000.

3. How much have you expended in works?—The present company has only been in existence for four months.

4. And is now turning out how much coal?—An average of 1,500 tons of coal and fireclay per month.

5. How much coal?—About 1,300 tons, and about 200 tons of fireclay.

6. Where do you sell the coal?—In Auckland. We pay the freight. We average about 12s. 6d. per ton.

7. What is your coal more suitable for?—Steam purposes. The Union Steamship Company are our largest consumers. We have a contract with them, but for no fixed amount. They take all our coal pretty well. The Northern Steamship Company and the Ferry Company take a lot of our coal, and also the New Zealand Shipping Company.

8. You are not tied to the Union Company?—No; but they are our mainstay.

9. Was the other coal company a failure?—Yes. The mortgagee of the former company bought the mine in for £4,000, and sold it to us for £2,000.

10. How many men do your employ?—About forty-one.

11. Are your prospects good?—The country is very broken indeed, and wants a lot of prospecting.

12. What are your prospects of paying a dividend this year?—A good deal depends upon the prospecting which the manager is doing at the present time.

13. Take your present prospects?—We should be able to pay a dividend, as we are anticipating a rise in the price of coal. The competition was very severe indeed. A lot of new mines started and kept on cutting prices in order to get into the trade. That is what caused all the companies to go into liquidation.

14. I notice that all the coals are cheaper in Auckland than in other parts of the colony?—Yes.

15. You put that down to the number of small companies starting?—Yes.

16. Yours is the best local coal for steam?—Yes. Vessels such as the "Buteshire," Union Company's boats, the "Indra," some of the Tyser Line, and French and British men-of-war have used our coal. The company kept a hulk at one time in Auckland, but it was not satisfactory. We now run a lot of small vessels.

17. You act as agent for the company in selling the coal?—Yes.

18. There is no preferred customer, I suppose?—No. The Union Company, when I have been blocked with a cargo, have helped me out of the difficulty.

19. A good deal has been made at Westport about the Union Company having preference over other companies?—We cannot speak too highly of the Union Company, for they have always been willing to help us.

20. Under what title are the 2,000 acres in your property held?—It is all leasehold, except 1,400 acres, which is freehold.

21. From whom is it leased?—In some cases it is leased from the Natives, but the bulk of it is leased from Europeans. We pay a royalty of 6d. per ton.

22. You take the coal in a vessel out of the Ngunguru River?—Yes. Some of our shareholders have encouraged people to build vessels of a class called "scows" here. We were the first to build them.

23. They have a draught of about how much?—About 5 ft. 6 in. We loaded one vessel with a draught of 10 ft. 6 in.—the "Linda Weber"—but the class of vessels we get built is the scow. The largest one we have carries about 140 tons. They are the most useful class of vessel, as they can go into an open roadstead. We were the first to have these scows built, and the Sydney people ordered some right away.

24. Have you any suggestions to offer that would improve the coal-mining industry in this province?—The only thing I could suggest is a combination among the mine-owners, so as to open them out properly. At present most of the mines have just been scratched.

25. You do not pay anything for railway haulage?—No.

26. You do not take the scows right up to the mine?—We take them right up to the end of the horse tramway. If we are loading pontoons we bring them up to the incline; but we have to tranship the coal then from the pontoon into the scow. The largest vessel we took up was the "Pirate." She loaded 200 tons under the hoppers at the time of the Newcastle strike.

27. Is the quoted price of Westport coal here—£1 11s. per ton—the correct price?—Yes.

28. Does that coal come up the east coast?—It does not come into the Manukau; it comes right round the North Cape.

29. Can you give me any reason why it is only £1 11s. per ton in Auckland, while it is £1 18s. in Wellington?—No, I cannot give you any reason for it. I know the vessels get better freights from Newcastle to Wellington than to Auckland; consequently the Newcastle coal is the higher, and that would enable Wellington dealers to get higher prices for Westport coal. The great point is to get a large output, because it reduces the cost of winning.

30. Your coal is not quoted by name here?—We do very little shore coal. The steamers take it mostly, and the brickmakers.

31. *Mr. Lomas.*] Does the company sell the coal direct to you?—It is sold through me to the companies. When the first company started they had to go to the expense of snagging the river and doing all the pioneer of the work. There was not a house in the place when I went there. The capital required to open it out came from Victoria at first, and they thought it was rather hard that the others should come along and get the benefit. We are now anxious to get the telephone extended down to Ngunguru, but the authorities now ask £40 per annum as a subsidy for the extension of the line from Kiripaka to Ngunguru, a refund to be made up to the £40 if the line pays 5 per cent. interest and total expenditure, including maintenance charges. The great disadvantage is want of water: if we had the water we could load large steamers. Another point that tells against us is the navigation limit, which stops at Whangarei Heads. The steamer can go on to Whangarei, but cannot stop at Ngunguru. The engineer must have a second-class certificate.

32. *Mr. Proud.*] What depth of water have you got?—10 ft. 6 in. The "Linda Weber" had to be towed out.

33. Have you ever had any accidents?—One. The "Kiripaka" was caught on the rocks in going out. The insurance company gave her up, but she floated right off afterwards. That was at the mouth. We have a great deal of difficulty in getting ships, because there is a lack of masters. We are paying about £4,000 a year in wages.

34. What do the men average in your mine?—The miners get from 8s. to 9s. a day, working about ten days a fortnight.

FRANZ SCHERFF, Secretary of the Taupiri Coal-mines (Limited), examined.

1. *The Chairman.*] Will you kindly tell us, shortly, the way in which these companies have been amalgamated?—There were originally four companies at work. The Taupiri Extended was the principal company, and opened their mine about twenty-five years ago. That has always been the leading company. Then the Taupiri Reserve Company started. They took a lease from the University College, and worked it for about fourteen years. There was also the Waikato Coal Company, whose mine was on the other side of the river. They have been working since the war, but could scarcely make it pay. The Taupiri Extended leased their first mine from Mrs. Ralph. This lease ran out ten years ago, and they then opened their present mine on 150 acres freehold, adjoining the old mine. Shortly after that Ralph Brothers sank a shaft near the river, and opened their present mine. There was not sufficient trade for four mines, and therefore the Taupiri Extended and Taupiri Reserve Companies together leased Ralph's Mine at £800 per annum, and kept it closed.

2. You have now gathered the mines into one company?—Yes; the Taupiri Extended and Reserve Collieries, and Waikato Coal Company and Ralph's Coal-mine.

3. Are there any other companies at work in that district?—No. There are several parties boring for coal near Rangiriri; they have found two small seams of rather inferior coal. Then, I believe, others are boring across the Waikato River, and got into hard rock at about 500 ft. The Taupiri Extended Company tried to bore deep at Huntly three years ago, thinking there might be bituminous coal, but soon got into the slate rock. Parties are also boring below Rangiriri, and near Mercer, but, as far as I know, have not been successful. I believe it is also intended to again open the Miranda Coal-mine. This mine was opened about fifteen years ago, and worked for about seven years. About £24,000 was lost in working it. The coal was inferior to that of the other Waikato mines, and there is some difficulty in bringing the coal to the railway-line.

4. Your company is now employing a capital of how much?—£72,000. There are 85,000 shares, but only 72,000 have been allotted.

5. You have expended in works, roughly, about how much? Give us the total value expended by all the companies you represent?—The amount spent in improvements and in sinking two shafts at the Extended Mine was £20,000, but it is written down to £9,000. The Reserve Mine spent about £12,000, and Ralphs' Mine about £6,000.

6. You are turning out coal to the extent of how much?—78,000 tons last year.

7. And you hope to increase that output?—Yes, as soon as the railway to Waihi is opened, but until then I do not expect any considerable increase. The coal is an ideal coal for household purposes—very clean, easily lighted, burns bright, and leaves only a little ash; but for steam purposes we find it difficult, especially at Auckland and at the Thames, to compete with the water-borne coal from Hikurangi, Ngunguru, and Kiripaka. The latter coals are a little stronger than ours and can be supplied at less cost, having no railway freight to pay.

8. What is militating against the success of your coal?—It is too friable and too bulky to export, and quickly deteriorates on exposure to the weather.

9. Is there anything you would like to represent to Parliament through this Commission?—No. The only thing that would help us would be a reduction in the freight to the Thames and Waihi.

10. What do you pay for haulage from Huntly to Auckland?—6s. 6d. per ton.

11. And to the Thames?—7s. 3d. per ton. I do not think we shall be able to compete at the Thames with the water-borne coal, but we may at Waihi. We made application to the railway authorities, who said they would be glad to assist us, but if they reduced the rate of freight to us they would have to reduce it all round.

12. Can you tell us how and in what way you dispose of the coal: do you sell it at Huntly?—Yes, at Huntly only.

13. And in any special way—has anybody got a monopoly?—At the time we made the arrangement for the amalgamation of these mines several coal merchants had interests in them, and we agreed that discounts were to be allowed to coal-dealers according to the number of tons purchased per month. This, to a certain extent, threw the principal Auckland trade into the hands of the large dealers. But there is no monopoly. Any person taking the same quantity per month as the coal-dealers will get the same discount as they.

14. On the whole, has it been a profitable venture to the company so far?—Yes; we have paid 1s. 6d. per £1 share dividend, equal to 7½ per cent. per annum, whereas before the amalgamation all four companies were losing money. We only wrote off £1,080, and carried forward £890. I think we ought to be able to write off 5 per cent. for depreciation every year.

15. Do you lose much from waste coal?—Yes, a good deal.

16. Do you think that loss could be diminished?—Only by getting a low rate of freight for the slack coal. To press the waste coal into briquettes would not pay. It means mixing pitch with it, and that would cost more than what we could get for the coal eventually.

17. What do you get for the coal at the mine?—On the average, 8s. 3d. per ton now. We make about 2s. a ton profit. It takes 1s. 6d. to pay 7½ per cent. dividend.

18. Can you give us the number of men employed in the mine?—The total number of men employed at the three mines is 180. Last year we mined 94,243 tons of coal, and sold 78,630 tons. The difference is waste. We paid £18,697 in wages, averaging 4s. 9d. per ton. The capital of the Taupiri Coal-mines (Limited) is £85,000, in 85,000 shares of £1 each. Out of this the shareholders of the Taupiri Extended Company received £36,000 fully paid-up shares. The balance was distributed between Ralph's, the Taupiri Reserve, and the Waikato Coal Company. There are 72,000 shares of the 85,000 in the Taupiri Coal-mines (Limited) paid-up and distributed among the amalgamated companies, and 13,000 shares are unallotted.

19. Could anybody take up those 13,000 shares?—No, not except by special resolution. The shares are below par at present.

20. How is the property held?—The total area of Ralph's property is 2,000 acres, freehold, which we lease.

21. How many acres of freehold have you?—We have about 150 acres, and we lease about 97 acres at the Hakanoa Lake and 640 acres at the Kimihia Lake.

22. You pay a royalty on the lease of how much?—We pay a royalty of 4d. to the Government, and to Ralph's 6d. royalty and £250 rent.

23. You paid a dividend in October, 1899?—Yes; we have paid a dividend every six months.

24. You had nearly £3,000 in hand in April, 1900?—Yes, and we want it all for improvements and lawsuits.

25. You are not creating a reserve fund?—We are trying to do so, but it is rather difficult. For the half-year ending the 30th September, 1899, we paid the miners 2s. 10d. a ton; day wages and manager, 1s. 2d. a ton; materials used at the mine, 5d.; rent and royalties, 6d.; plant, sidings, and borings, 5d. a ton; Auckland office expenses, 4d. a ton: making a total of 5s. 8d. The selling-price for the half-year ending September, 1899, was 7s. 3d. per ton, leaving a profit of 1s. 7d. per ton. Since then the cost of getting the coal has been increased 1s. per ton, and the selling-price has been raised 1s. per ton.

26. What do you say a man averages a fortnight at the mines?—At Ralph's Mine, the average per miner was £2 5s. per week. Dividing the men into two classes, I find that the best miners have averaged £2 16s. a week and the inferior men £1 13s. a week.

WESTLAND-NELSON DISTRICT.

WESTPORT.

MONDAY, 21ST JANUARY, 1901.

ARTHUR D'OYLEY BAYFEILD examined.

1. *The Chairman.*] You are acquainted with the history of the Westport-Cardiff Coal Company, I understand?—Yes, from the inception of it.

2. Were you legal manager of the company?—No, agent. The control was in Christchurch.

3. You are what now?—My business is that of a land, estate, and commission agent. I also hold some official positions.

4. In what year did you first take an interest in the property now known as the Westport-Cardiff Mine?—My direct interest dates from the year 1872. I first began to spend money on it then, and have been connected with it more or less right through the piece. I was associated with others in my connection with it in 1872, and eventually part of the lease fell to myself entirely.

5. Were your dealings connected with this particular property now on fire?—Yes.

6. Will you give me a short sketch of the processes through which the property has gone until the present time?—I held part of the lease known as the Westport-Cardiff Company's property. I had the original lease of 350 acres, approximately, and asked certain gentlemen in Westport to join me in prospecting the ground and to find £150 for that purpose, I giving them one-half interest in my then lease. These gentlemen found the money, and we were known then as the New Cardiff Coal Company. We spent the whole of the money in prospecting. We were not registered as a company, but were simply a private party.

7. Had the mine been worked before by anybody?—No. That was preliminary to my general scheme of raising capital to work the property.

8. In about what year was that?—1889.

9. What happened between 1872 and 1889?—Practically nothing. I was associated during that time with the late Mr. John Corr and others.

10. Did the ground remain idle between 1872 and 1889?—There were four partners in 1872, and only prospecting was done. At that time I knew nothing whatever of coal-mining. I simply paid my money. In 1889 the New Cardiff Company took up more ground. The result of our prospecting was to show that it was advisable to do so. The properties now consist of 1,800 odd acres, known as the Westport-Cardiff Company. We raised the necessary capital to go to work, and were registered under the name of the Westport-Cardiff Company, with a nominal capital of £30,000. That was not the actual working capital. There were 25,758 shares issued, subscribing and paid-up. Nearly £40,000 was spent in works and in developing the property.

11. When did they start work?—We started as a registered company in August, 1892, and to put out coal at the end of 1894.

12. You know the area is 1,800 acres?—Yes, 1,799 acres 2 roods 38 perches.

13. Held under lease?—Yes, under royalty and rent: Royalty, 6d. per ton; rent (first year), £90, subsequently £450 per annum; rent merged into royalty when the latter exceeded the former.

14. The railway was extended to Mokihinui from Ngakawau?—When I was forming this company I was agitating for the extension of this railway. We lost the Bill in 1889, but it was carried in 1890. The railway was finished inside of two years.

15. Prior to that had you exported any coal by sea?—No, I always objected to attempting to export it by the river. As a matter of fact, Mr. O'Conor and I were opposed before the Nelson Waste Lands Board in our opinions as to whether the Mokihinui properties should be worked by

the river or the railway. My plan embodied the connection with Westport by railway. I never countenanced the river.

16. What was your output?—We put out an average of 44,000 tons for the five years we were working, which was more than we were bound to do by the terms of our lease, and we were the one company in the country that did so. The total output up to September, 1899, was a few tons under 220,000.

17. What is the length of the railway?—From seven to eight miles.

18. Was any special siding put in for the company?—The company put in a siding from the Mokihinui Company's mine to our bins. There was a private line known as the Mokihinui Company's line, which was purchased by the Government for £12,000 odd.

19. About how many men were the company able to employ?—At the time we knocked off an average of about ninety men and boys. It was sometimes a hundred, and sometimes a little less.

20. Why did you knock off?—That is a very important question, and one which will have to be put directly to the control in Christchurch.

21. Was it after the fire began?—No; the fire did not start until January, 1900. Personally I was opposed to knocking off, but I was only acting as agent.

22. What was the cause understood to be?—The company were trying to get concessions from the Government, to enable them to raise more capital, in the direction of having the deficiency clause of the Westport-Ngakawau Extension Act repealed, so as to relieve us of the liability to pay any deficiency on interest. That has now been repealed. If it had been done at the time it would have been of material assistance to the company in the carrying-on of their operations. Another thing we asked for, and which we are still asking for in the interests of the industry, is an adjustment of the haulage-rate, to enable the Mokihinui field to be profitably worked without fear of undue competition.

23. Did the company pass a resolution simply saying that it would cease to work?—The directors passed the resolution. I must add that we were making no profit at the actual time we knocked off.

24. Had you ever paid a dividend?—No. I wish to emphasize my answer in fairness to the company: We always spent our money in developing the property, and paid no dividends, although we made a profit of nearly £5,000 one year. We spent the money in further developments and plant. Then, Mr. Broome, our manager and engineer, reported that we could not rely upon getting any certain quantity of hard coal. That is another reason that weighed with the company in suspending operations. I think, notwithstanding our disappointments with regard to getting concessions, if there had been any quantity of hard coal we should have gone on.

25. Have you any reason to doubt the correctness of Mr. Broome's statement?—It is a very delicate question, which I think I shall refrain from answering. A doubt has arisen. I believe there is evidence to show that there were three faces of hard coal; but whether my information is correct I cannot state. I am not a coal expert. My work had to do with the local agency part of the business. I was credibly informed that there were three faces where there was hard coal.

26. There was a difference of opinion on the subject?—Yes, there was a local difference of opinion.

27. What did the company do when they ceased work: did they give notice to the Government?—Yes, they gave notice some months before that they would knock off unless they got the concession. The men were also informed of the danger of our not being able to carry on, when we found that we were not working to a profit, and they set to work to help us, but they were just as helpless as we were, and were unsuccessful.

28. Was the mine closed up?—Yes.

29. Was it barricaded?—No, it was kept open; and Mr. Broome remained in charge until January, 1900. His engagement terminated in that month. He left here on the 28th January, as far as my recollection serves me.

30. Was any other man there?—Mr. Broome's brother, a clerk, was employed by the company. Peter Martin was also employed there by the company in keeping the plant in order.

31. The rolling-stock and gear were kept in order?—Yes, up to the last, so far as we were concerned, until the fire came. It was kept in perfect order, and we spared no expense in doing so.

32. On what date did the fire break out?—During the last days of January, 1900, I believe. It was on a Sunday. At the time of the fire, so far as I know, the company had only Mr. Roland Broome in charge. Mr. McKenzie, the railway Traffic Manager, sent me a note about 7 o'clock in the evening, asking me if I knew that the Cardiff Mine was on fire. That was on Sunday, 28th January. I immediately came to the office and telephoned through and found it was the case. Peter Martin answered me at the telephone, and I discovered, very much to my surprise, that there was practically no responsible person there. Mr. Roland Broome, who had come into town on the Thursday, had only returned that afternoon on being given news of the fire. Martin was one of our men employed at the mine, and Mitchell was our underground man in charge.

33. Was Mitchell there on pay?—I think not. I told Martin to go down and get him.

34. You do not know whether Martin or Mitchell was on pay?—Mitchell was not. I am not certain about Martin. I told both men to hang on there—that Messrs. Tennent and Broome would be there in about half an hour from Westport. I then learned further that the mine was on fire. I reflected as to what was the best thing to be done in the interests of the company, and I filled in that gap by going to Mr. Jamieson, agent of the Westport Coal Company, and asking him for the services of a man. I think I mentioned Mr. Murray, telling him, of course, that the mine was on fire, and that I wanted the best assistance I could get, and particularly an experienced

man. Mr. Jamieson at once met me and telephoned to Mr. Lindop, who mentioned that the best man possible to get hold of was Mr. Dixon, because he had had considerable experience of fires. We then rang up Mr. Dixon. There was a little delay in that, and I went back to my office. I also saw the captain of the fire-brigade, and some of the men were asked to kindly give their assistance, if required, with their hand-engine; but this it was found would be of little use. We will now get to the time when I first communicated with Messrs. Tennent and Broome. Mr. Broome spoke to Mr. Tennent, and we arranged to wait an hour for him to get all the information he could. I went back to Mr. Jamieson's private house, and was able to have communication with Mr. Dixon. It was arranged that Dixon should go out with me at 7 o'clock in the morning. I then went back to the office and waited until Mr. Tennent came back from the mine. That was on the same day. Tennent went up and reported to me that he could not possibly get in to the fire at the time but that he would make another effort, which he did. They then found that they could only get into the drive a certain distance, and decided that nothing could be done until the morning. I informed Mr. Tennent and Mr Broome, who was the man in charge, of my coming out and bringing Mr. Dixon with me. I think Mr. Tennent was glad to have Mr. Dixon. At any rate, we went out next morning and met Mr. Tennent, and together we went up to the drive, I remaining outside while Mr. Tennent and Mr. Dixon and one or two others made an effort to get into the mine. They were away some time, and came back and reported that it was impossible to get in owing to the black damp and poisonous gases. Mr. Dixon and Mr. Tennent then deliberated as to their course of action. As far as I am concerned, I kept myself in close touch with my directors, and was successful in getting a message through to Christchurch at about 1 o'clock in the morning. I communicated with my people from Seddonville by urgent message, keeping them apprised of what was being done. I produce a memorandum as to the opinion given to me by Mr. Dixon as to the position. It is as follows:—

5.30 p.m., 2nd February, 1900.

THE fire in mine was located to-day in the back-heading of the long jig. Before entering the mine the fan was started, and a measured current of 10,440 ft. air obtained at mine entrance. The party consisted of J. Dixon, A. Mitchell, R. Broome, J. Clark, and J. Smith. The party travelled to a point some 29 chains on main road, returned to long jig back-heading and discovered the fire therein, some 4 chains up the said heading. The main road was closely bratticed off, and air diverted up heading. Success attended the efforts for some time, but about 4 p.m. a fall took place, and at same time the mass burst into flames for a distance back of 10 or 12 yards. Falls continued, one very heavy one taking place. The fire being so active, and falling roof so continuous, it was decided to abandon efforts to reach the seat. It was positively unsafe to venture anything of the kind. I, therefore, decided to withdraw the workmen, and close the mine as far as possible, until further considered and seen by Government Inspector. The heading was closely bratticed at 5 p.m., also all openings to mine reclosed; practically sealing the mine by temporary means. From my close observance of the conditions, I hereby state that the fire is extensive, and the only safe remedy is to seal off the affected district as soon as possible.

JONATHAN DIXON.

I felt that the matter was serious, and applied to the Westport Coal Company to let me have Mr. Dixon's services to practically deal with the matter, and informed my directors in Christchurch of what I had done. My request, of course, could not be acceded to until communication had been had with Dunedin. Mr. Jamieson's company very generously and promptly gave permission to Mr. Dixon to render any assistance he could in the matter. Practically, I left Mr. Dixon in charge for two or three days. That brings me up to the point where they endeavoured to combat the fire. I express no opinion as to whether the course adopted was right or wrong. Within my knowledge, Mr. Dixon left a statement with the Mines Department as to what guided him in the matter.

35. The fire is still burning, is it not?—Yes. When Mr. Dixon left, Mr. Tennent practically had sole charge of the directions.

36. Do you wish to express any opinion?—No. All I did was to get all the possible assistance I could to put the fire out.

37. That was in January, 1900. What has been the position of the company since then—what have they paid towards the expenses of putting this fire out?—I think over £400.

38. How many men did they put on after the Sunday, when the fire was discovered?—About half a dozen, performing various works under Mr. Tennent. Mr. Dixon only remained for a certain time—three or four days. Both he and Mr. Tennent concurred in the course of action taken.

39. How long did the company go on finding money to pay the expenses for putting the fire out?—We went into liquidation in March following.

40. Up to that time had you been paying men to endeavour to put the fire out?—I think so. The resolution to go into liquidation was passed in March, and was confirmed on the 4th April, I think.

41. Then, during all February and most of March, efforts were being made to put out the fire?—Yes, at the company's expense.

42. Was any money paid after the liquidation of the company?—I cannot say.

43. Has anything been done with regard to cancelling the lease?—The Government resumed possession on the 23rd or 24th May.

44. In what way?—By serving a notice on us, and posting it up at the office, under the provisions of the Coal-mines Act.

45. Did any officer go up and take possession of the property?—Yes, Mr. Tennent.

46. Was any rent due?—No rent, but the royalties were not paid.

47. Do you know what amount was due?—About £1,600 or £1,700.

48. For how long a period do you suppose the company was able to employ its average of ninety men and boys?—For about four years we had been putting out coal, and the number gradually increased. We began with perhaps ten or twenty at first. That was the actual number employed in the mine. We were employing a large number of men from the time we started,

either by contract or in direct labour on the works. I dare say that on examination it would be found that the average number of men and boys employed from start to finish, including contractors on the company's works of all sorts, would be ninety.

49. What would their pay be?—Their average would be less than that of the Denniston men, as our mine was more difficult to work in consequence of the number of seams of stone dividing the coal. Our men met us, and accepted 3d. per ton less for hewing than that fixed by the Westport Company. We paid 2s. 3d. per ton. I think the average per man was from 7s. to 8s. per day, but they were not always working. I do not wish to offer any opinion as to the quality of the coal in the area destroyed, as my opinion is that there is not much coal there. I have seen the plans, and have a knowledge of the area. My opinion is that there is not a large area of coal in the section now burning which would have been available for working. The fire is now raging in the area known as the Anna Hector section, and I believe from the information received that the fire will be confined to that area.

50. What do you say would be the area that would include this fire?—I cannot say without reference to the plans, which I have not got here. The fire will be contained in an area of about 20 acres.

51. Can you say anything about how far it may be expected to go?—My belief, founded on information supplied to me by Mr. Tennent, is that it will not extend to the Cave area. I have kept myself posted up as to the position of the fire, being desirous of resuming this property, and I have, as a matter of fact, made proposals to the Government with that object.

52. What is there between the Cave area and the Anna Hector section?—A large fault. I may say that I rely on the statement of the Inspector.

53. Do you know whether the fault is upward or downward?—I cannot express an opinion on that point. The fault, I am informed, will cut off the possibility of the fire extending to the Cave area.

54. Until the fire is extinguished will there be any risk in opening up any other portion of this mine?—No. We consider it will be quite safe to open up the Cave area, even with the fire as it is.

55. When you were working the mine where did you sell the coal—at the pit's mouth?—No. We sold no coal at the pit's mouth other than to the Mokihinui people. We sold it all over the colony, through our managing director, Mr. Hargreaves.

56. Has he any connection with any shipping company?—Not so far as I know.

57. The company was not tied to any shipping company?—That is a question that should be put to the managing director. We were in no way restricted to any particular person. We sold our coal to the New Zealand Shipping Company and the Union Steamship Company. In our dealings the Union Steamship Company were considerable buyers of steam coal.

58. What did you get for your coal?—That is a question which I must ask you to put to the managing director.

59. The Union Steamship Company were your principal carriers, were they not?—Yes.

60. As a matter of fact, did you ever send a load away in any other bottoms?—Yes. For instance, we carried on a trade with Wanganui, and, to a lesser extent, with Napier. We sent considerable quantities to both places by sailing-vessels.

61. Did you ever sell any coal to the Anchor Line?—Very little.

62. Was the quality of your coal falling off towards the end?—There was a good deal of soft coal towards the end, but you will understand that the quality of our coal was always understood to be very good. There was a difference in the condition of it.

63. The company has lost all its capital, I believe?—Yes, everything, absolutely.

64. Has the plant been sold?—No, it has been assigned to the Government, and the company has been relieved of all liability for royalty and deficiency in interest on the railway.

65. Do you feel inclined to express any opinion as to the principle of shipping coal from the staiths?—I have no hesitation in saying that the crane system is the best. At the same time the staiths are convenient for storage purposes. If the staiths were not there it would mean the employment of a very much larger number of trucks. The coal shipped by the staiths suffers by being broken.

66. Was your attention called to the quantity of slack left in the mine?—No. As a matter of fact I do not think there was much slack left. We had our slack heap outside. I have no hesitation in saying that the fire started in the Cardiff Mine by ordinary combustion. I cannot understand how men can make the statement that the mine was set on fire. I think all the evidence goes to show that the fire was the result of ordinary combustion.

67. What do you mean by "ordinary combustion"?—I mean that the coal was of that nature that there was a risk of ignition by self-heating. As a matter of fact, fires have occurred in this district of which nothing has appeared before the public.

68. Do you know what was done with the waste in the mine?—It was taken out, as far as I have understood. I have often been through the mine, and did not observe any extraordinary accumulation of slack. There were accumulations, and there must have been some where the fire started, because the fire was actually located by Mr. Broome when he was advised of it.

69. Do you not think that was the cause of the fire?—Undoubtedly I do. There was combustion. That is my opinion, and I think the evidence will go in that direction. I should be very much surprised indeed if it could be proved that this mine was wilfully set on fire. I shall be glad to attend the Commission again, not only on matters referring to the statistics given, but on wider matters.

TIMOTHY CORBY examined.

1. *The Chairman.*] What are you?—A storekeeper and hotelkeeper at the present time, but I have been a contractor.

2. Are you living at Mokihinui?—Yes, at Seddonville.

3. You presented a petition to the House of Representatives, in October, 1900?—I presented a petition, but could not give the date of it.

4. The petition prayed for an inquiry into the origin of the fire at the Cardiff Mine, and also as to the steps which had been taken for the purpose of suppressing it?—Yes.

5. You say in the petition that a large area of valuable coal, the property of the colony, is through the continuance of the present fire threatened with destruction?—Yes.

6. What area do you consider is in danger of destruction?—That is more than I can say, because there is a very fierce fire raging there at the present time, and what extent of ground it may go over we do not know. Moreover, I do not know the extent of the Mokihinui Coalfield, but it is a large area. The fire is now visible along Chasm Creek for 12 or 15 chains.

7. That is one boundary. The other boundary is, how far?—That is the only place where it is exposed to the open air. We cannot tell what distance it is going into the mine.

8. Is that where the outcrop is in the creek?—Yes.

9. Give us all the information you can to show us that a large quantity of coal is being destroyed?—That is to be seen. The fire is there, and it is burning away, and it must have destroyed the coal. I saw some of Mr. Hayes's evidence. He says that he reckoned, from the letters and correspondence, that the people of Seddonville were antagonistic to Mr. Tennent. We want to show that the party I belong to had no antagonistic feelings towards him in the slightest; but it is our opinion that Mr. Tennent had antagonistic feelings towards the interests of the district, and that we mean to prove, so that you can decide whether we are right or they are right.

10. You say you reckon that Mr. Tennent was antagonistic to the district?—That was my opinion, and the opinion of the majority of the public at Seddonville.

11. As to the first allegation in the petition, "That a large area of valuable coal, the property of the colony, is, through the continuance of the present fire, threatened with destruction." Tell us what quantity of coal you consider threatened with destruction by fire?—The whole district is, if it is not kept in check; but there is a certain block that the action taken to subdue the fire has enclosed in the area where there was no occasion to. That is a block of 10 or 12 acres unworked inside the mine, that could have been worked out. This could have been excluded if proper steps had been taken, and the company could have resumed operations notwithstanding the fire.

12. Mr. Hayes, in his evidence before the Goldfields and Mines Committee, says: "I may say that what is known as the old portion of the mine, or the Hector Block of the old portion, is the portion in which the fire is burning." Is that correct?—Yes.

13. He says, "The active fire at the present time is, in my opinion, simply confined to the small amount of outcrop coal left near where the coal has been extracted." Is that correct?—I do not think so.

14. Will you tell me what you have to say about it?—My opinion is that the fire was nearer to the tunnel than the outcrop. I think so from the heat of the water coming out of the tunnel at the time.

15. He says he thinks there is no commercial value in the coal?—I consider there is. I disagree with that altogether. There are sound blocks of coal left, and, from a commercial point of view, I think it was the most valuable part of the coal, because it could be taken out much cheaper. Some of the pillars had been robbed. Some were standing especially close to the rope-road.

16. Can you give any estimate of the quantity of coal there was subject to the fire, that will probably be consumed?—No.

17. Will you be able to produce any evidence of it?—Mr. Broome would be able to tell that, but I am debarred from calling him as he is in Kaitangata. I understood from Mr. Broome some time before the mine closed down that he would be in a position, if there was a demand for steam coal, to supply a large quantity on short notice.

18. Supposing this part of the mine were shut up, had not the company other places they could have worked?—Not without opening them up, and it would take a lot of money to open them up, because the tunnel is destroyed, and that is what we contend could have been saved.

19. Do you know what it was that compelled the company to close down their mine and discharge their men?—It seems that it was not paying them.

20. How long before the discovery of this fire had the company ceased practical operations?—It would be two or three months; I cannot give the date.

21. Have you any idea how far this fire will extend if not put out, from the outcrop in the creek back into the hill?—It may not extend any further than it has already gone, and it may if not carefully watched. It may carry past the fault. If it does, then the whole coal area of the district is in danger.

22. What do you say as to the quality of the coal in this particular mine?—I reckon—I am not an authority on coal—that it was good steam coal. It was clean, nice coal to look at, and principally soft coal.

23. Is it fit for household purposes?—I reckon it was a good household coal, but it was rather soft, and did not command a market, as far as I can understand.

24. On whose authority did you allege in your petition that a large area of valuable coal was threatened with destruction?—That decision has been arrived at by the people in the district, and it is quite evident that it is a large area, and is valuable. I was appointed chairman of the vigilance committee, and it is at the wish of the public of the district that I have taken action. It is also my opinion that it is a large area of valuable coal.

25. You might explain to us: you said a block of from 12 to 15 acres was unnecessarily included in the area affected by the fire?—Yes.

26. How did it come about?—We contend that, instead of putting the dam in where they

did, they could have gone to another point. Even at the finish, when they did it, they could have put it in another place and saved the north block.

27. Do you know whether the coal left in the mine is solid coal or only pillars?—There is this block which has been mentioned of about 12 acres. It was somewhere between 8 and 20 acres. That block is not touched, except for a couple of drives which have been put in a short distance.

28. Is that included in the coal that Mr. Hayes says is of no commercial value?—I should think so.

29. Will it be certainly burned?—Yes; you cannot get at it. I believe it is now under water. It will not be burned, but it will take some time before you can get at it.

30. What coal is it that is stated to be of no commercial value?—That I do not know exactly, because I have not studied Mr. Hayes's report sufficiently.

31. Mr. Hayes says that the coal burned and likely to be burned is of no commercial value?—I say it is. There are pillars close to the road which could be taken out and easily got out.

32. Is there no other coal there but pillars?—Only this block which is enclosed by the fire.

33. Outside that block there are only pillars to be taken?—That is all.

34. By whom was this petition prepared?—Principally by myself and Mr. Stewart, our secretary. He wrote it. The vigilance committee saw it before it was sent away.

35. You and he are really responsible for the statements in it?—There are others as well as ourselves, but I hold myself really responsible for what is in it.

36. Who elected the vigilance committee?—The whole of the people of the district. They were appointed by a public meeting, and consisted of miners, storekeepers, and others.

37. When were they appointed?—They had been in existence two or three years, and were re-elected annually.

38. When was the last public meeting?—The secretary would be able to give you that information at Seddonville.

39. Was there a public meeting subsequent to this fire?—Yes, more than one.

40. And was it decided by a public meeting that a petition should be prepared?—Yes, and a committee appointed from the public meeting in conjunction with the vigilance committee.

41. As to the means that should have been adopted, will you tell me what, in your opinion, were the means that should have been adopted?—I was not there at the time I should have to depend upon what others have told me.

42. What were the means that should have been adopted?—The means that have been adopted should not have been adopted.

43. You have made a statement: you have undertaken to say, "That at the first discovery of the present fire, had simple means—such as any ordinary miner would have employed—been adopted, the fire could have been easily extinguished, and with little or no expense." I am asking you what you mean by that sentence?—By closing off the drives when it was on fire, and keeping them closed to cut off the fire from the main tunnel, so as to keep the fire to where it was—to cut the air off from it.

44. You mean the drives taken from the main tunnel underground?—Yes; they must have kept the main tunnel open while working. And then, if they had closed the bords in the main tunnel, they could have kept it in check and away from the main road, and prevented the damage it has already done.

45. What else would you have done; what is the simple means such as any ordinary miner would have employed? Is that all you would have done?—Yes, that is all. We will get miners to prove that later on.

46. You go on to say in your petition, "Instead of this, evidence can be brought to prove that the means taken to subdue the fire had the opposite effect—viz., to make it burn with greater force." Will you explain?—There was a fan put on to clear the tunnel, but it gave fresh air to the fire, and made it burn more fiercely. That was the effect of it. The men went in to see it, and this fan was put on and made the fire flare up.

47. You say, "That the present methods which are being taken under the direction of the Sub-Inspector of Mines are, in our opinion, wholly inadequate and impracticable, and a sheer waste of public money." What were the methods he took?—They put the fan on, and got the fire blazing up. On the Friday evening they put no stopping in. They put up some canvas brattice, and left the fire and went away. From the Friday evening they did not go back until Monday morning at 11 o'clock. I say that the method adopted gave the fire such a start that they could not cope with it afterwards.

48. Messrs. Shaw, Alison, and Foster were sent to make a report, were they not?—Yes; and had their recommendations been carried out we should not have wanted this inquiry. They reported what we wanted, but the Government have not carried out their recommendations.

49. What do you say about the dam flooding the mine?—I say it was not put in the right place at first. It should have been put in six or seven chains further up. The plan will show where it ought to have been put in. Mr. Hayes says the dam was tight and had been tampered with. I went there shortly after it was built and it was leaking then, and I consider it was leaky from the start. It was not only leaking, but the whole of the water was going. I will bring evidence to show what the dam was like.

50. The next allegation is, "That the residents of Seddonville and surrounding district depend, in a very large degree, upon the working of the coal-mines for their support, and it is a matter of pressing concern to them that every reasonable means shall be taken, and every practical and adequate method adopted, to subdue the Cardiff fire and save the coal-measures of the locality from destruction." I do not think any reasonable man will dissent from that; but I want you to indicate how the coal could have been saved from destruction. The sixth allegation is, "Should

the inquiry prayed for by us be granted reliable evidence will be forthcoming to prove that official negligence, delay, and incompetence, have been the contributing causes which have prevented the subduing of the fire in its early stages," &c. What evidence do you propose to bring to show that there was official negligence, delay, and incompetence?—One of my principal witnesses is in Kaitangata—William Cunliffe, a coal-miner. There is also Mr. Peter Martin, now living in Mokihinui, and working at Sergeant's Hill. He was employed as carpenter by the Cardiff Company. Just before the Commission came round there was a meeting of the residents called and a committee of five appointed to meet you.

51. What are their names?—Messrs. Corby, Quinn, Hunter, Milligan, and Stewart. The witnesses will be Messrs. Cunliffe, Martin, Hunter, McIndoe, and others.

52. Do you want to say anything now about Mr. Tennent?—Nothing, except that, instead of the people of Seddonville being antagonistic to Mr. Tennent, the majority reckon that he is antagonistic to the interests of the district—that is, to the coal industry. The reason for thinking so is that his reports to the Government are not, in my opinion, correct. It would be right if they contained his honest opinion, but an Inspector's reports should stop at that. He should not tell every man he meets that the place is no good. It is injurious to the district. Some members of the Coal-miners' Union might have a little feeling against Mr. Tennent, but the majority of the people of our district have nothing against him except what I have said.

53. Have they any fault to find with him as Inspector of Mines?—It has only regard to the progress of the works and the action taken in subduing the fire, and also the words he has made use of, that the Cardiff Mine was only a "stone" mine. It is his damaging reports that we complain of. I admit he has a right to give his opinion to the Government, but think he should withhold it from other people. Whether he was in fault in his action at the fire will be proved before the inquiry is over. As far as I am concerned, I have no animosity towards Mr. Tennent—not the slightest.

54. Are you connected with the same representative body that asked for an inquiry into Mr. Tennent's conduct?—I have nothing to do with Mr. Tennent's conduct except in connection with the Cardiff fire.

55. *Mr. Harden.*] You know the prevailing feeling at Seddonville with regard to Mr. Tennent, as Inspector of Mines, in looking after the safety of the men, and so on: have you ever heard any complaints about him?—I would sooner decline to answer that question. It is not in my line at all, because I know nothing about the opinions of the men working in the mine or the union. They being a society in themselves, their business is kept pretty secret from me. It was only last week that I knew there were any complaints made by the union against Mr. Tennent.

56. So far as Mr. Tennent is concerned you know very little about him?—Very little. His inspecting duties I only know of in connection with the works at the fire.

57. Your complaint is that he expressed his opinion about the district rather too frankly?—Yes. I have no objection to his opinion being expressed if it is true; but we know that he is only mortal the same as other men. We have other men giving reports to the Government pretty favourably of the Mokihinui coalfield, and we have, in defiance of his reports, proof by a party of miners, headed by Mr. Lomas, given to the committee of a favourable nature, as we know that from 12,000 to 15,000 tons of coal have come out of the Mokihinui Mine since the reports were made, and that more will come too. We consider it is wrong for Mr. Tennent to speak to enterprising men such as Mr. Bailie against the district.

58. You do not complain of his official reports?—No.

59. You say that he has expressed his opinion to individuals?—Yes.

60. How do you know?—I have been told that he has, and I think I can bring evidence to prove it.

61. If you cannot prove your statement you will withdraw it?—I will bring men to bear out the statement.

62. You would not dream of pressing the allegation against Mr. Tennent unless you could prove it?—No. I might state that I made an offer to the Government to put out the fire at the Cardiff Mine for £500, and said that I would not expect any payment if I did not succeed, but the offer was not accepted.

63. *Mr. Cottrell.*] Did you have anything to do with sending for Mr. Tennent when the fire first broke out?—No.

64. Do you remember Mr. Tennent going out?—Yes.

65. Do you think he devoted all his time and ability in coping with the fire?—I thought he was going to do so at that time, or I would have tried to get there with him.

66. Did you have reason to change your opinion afterwards?—I think so, but I am not in a position to know what Mr. Tennent's orders were.

67. What did you think yourself?—I thought, and still think, that if the man was left to himself and had free scope to do as he liked, he has not done right.

68. Do you think he carried out his duties after he started, or did he stay away from the mine too long?—I thought when he went out he would do the best he could, and that the fire would be out very soon, and I think he did not take heed of it until too late. I believe the work done was not done as it ought to have been done. I do not say it was Mr. Tennent's fault; it might have been the fault of the Government. The work was not done, anyhow, and there is evidence in the offer I made to put the fire out for £500.

69. How long was it after the fire broke out when you went up to the fire?—I could not say exactly. It would be a week or two, or perhaps three weeks.

TUESDAY, 22ND JANUARY, 1901.

PETER MARTIN, Colliery Carpenter and Contractor, examined.

1. *The Chairman.*] Do you desire to make a statement on your own motion?—No, I would sooner be cross-questioned.

2. Were you employed in the Westport-Cardiff Company's Mine?—I was.

3. For how long?—About seven years, all told.

4. How long had you been working there before the fire was discovered?—I was one of the prospectors, and one of the first to work there.

5. Were you receiving pay from the company on the 28th January, 1900?—I was.

6. Full pay?—Only when I worked.

7. Who set you to work?—The manager.

8. What did you average a week?—For the three months previous to the fire, not much.

9. What did you average for the three months?—I am not prepared to give that.

10. Did you get twelve days' work in three months?—I did twelve days' work or more.

11. Did you put in twenty days?—I might have done more than that.

12. Were you paid by wages, or by the odd job?—I was paid when I was working, off and on. I would have to produce the day-book to show what you want.

13. Did you get £5 from the company during that three months?—I could not recollect.

14. Were you really in the service of the company at the time of the fire, or were you doing an odd job for a day one week and nothing the next?—I was the colliery carpenter the day of the fire.

15. Did you get sufficient from the company in wages to support you during the three months previous to the fire?—I do not think I did.

16. How long before the fire was it since you had been in the mine?—On Thursday morning. The fire was discovered on the following Sunday.

17. In what part of the mine?—Just the entrance of the tunnel.

18. Can you say whether there was any fire in the mine then?—In my opinion there was no fire then.

19. Was the main tunnel then free and open for any one to go into?—The mine entrance was free. I was not there alone. Mr. Bayfeild was with me.

20. Were you in for its whole length?—As far as we could see.

21. How long had elapsed since you had been right through the mine?—It would be about a week; two days after Mr. Broome had examined the mine, as shown by the report-book.

22. You think you had been right through the mine a week before?—Yes.

23. Were any the bords closed up then?—Not to my knowledge.

24. You say that all the bords were open?—I did not see any of them closed. There were five or six sealed which had been closed for years.

25. How long do you think had elapsed since the last bord had been closed up?—I think it would be twelve months before the mine stopped. I refer to tongued-and-grooved stoppings.

26. How long do you say the mine had been idle prior to the fire?—About three months.

27. Who was in charge of the mine during that period?—George Herbert Broome, the manager.

28. Were there any other men there besides yourself?—There were, off and on; but no one on pay except Roland Broome, the secretary, and myself, off and on.

29. Did you do any work for anybody else during those three months?—I think so.

30. How often was the mine examined during those three months?—I could not say. Three times running I was with the manager examining the mine, but what transpired during the visits I could not say.

31. Was the mine barricaded?—No.

32. Who discovered the fire first?—On the Sunday, 28th January, I was told that the mine was on fire.

33. Who told you?—The son of Mr. Keal—a boy.

34. What did you do?—I called on Peter McIndoe, a practical miner, and went up to the mine with him. We went to the mouth of the tunnel, and saw smoke coming out of the tunnel.

35. Then, what did you do?—The first step I took was to send for the man who was deputy when the mine ceased working—Alexander Mitchell. In about an hour he came up. I went to the railway-stationmaster to get him to ring up Westport, and send a message to Roland Broome, who was appointed caretaker by his brother. If Roland Broome could not be found, they were to find Mr. Tennent. A messsage afterwards came through that they were coming along. Mitchell, myself, and three or four more men went up to the mine. We picked up what brattice we could get in different places and put it up in the tunnel, some 30 ft. to 50 ft. in. [Place marked No. 1 on the plan.]

36. Did you make it air-tight?—We did as well as we could under the circumstances, but it was not air-tight.

37. Is there any air-shaft anywhere in that mine?—Yes; somewhere in the locality of No. 4.

38. Did you stop that?—No. We did something else before we came to that. We went over the hill to the bridge side and stopped it there with brattice-cloth, five or six fold.

39. How far from the entrance to the tunnel did you go?—About three bords in.

40. What else did you do?—We went back again to the entrance at No. 1. We could not find the shaft, so we got an old man that knew the bush, and he showed us where it was. We covered it up with brattice and bits of wood, and anything we could get.

41. Do you think you made a pretty good job of it?—No, we could not for want of material, and the night came on. We retired then down to the office. We were expecting Mr. Tennent and

Roland Broome every minute. Roland Broome had the key of the office. Mr. Tennent arrived at half-past seven o'clock.

42. Was anybody with him?—Mitchell.

43. Did any one else come that evening?—Roland Broome came to the Cardiff Company's office ten minutes or a quarter of an hour before Mr. Tennent.

44. Did you do anything that night at the mine?—Mr. Tennent took charge then and went up that night, and I went home for tea and did not go out again. Next day I came out and went up to the mouth of the tunnel, and there was no order to do anything. We were sitting there until nine or ten o'clock. A couple of men were then sent up the hill. I was sent to tear down pieces of brattice and put them up again, and so on. That was the brattice we had put up the previous day. Somewhere about ten o'clock Mr. Dixon arrived. Mr. Tennent and Mr. Dixon went into the tunnel, and I was sent to watch at the brattice-cloth to look out for signals to show that they were going ahead. We lost the signals, and Roland Broome became rather anxious. We told them that the fire was at the back heading of the long jig, and expected them to go there. Nothing was done until Mr. Tennent and Mr. Dixon came out. When they returned either Mr. Tennent or Mr. Dixon said they could not find the fire—that there was no fire in that part of the mine. I wondered why they did not go up the main road, where I told them the fire was. We went to the bridge end of the tunnel where the smoke was coming out. They entered there a bit, but came out again soon. I was in with them.

45. Why did you come back?—Mr. Dixon and Mr. Tennent were leading and turned, and of course, the men had to go out. We went over the hill to the entrance at No. 1 again. When we arrived there we found the current of air had changed and the smoke was coming out there. That was at mid-day. It was pretty strong in the afternoon. After lunch two of us got orders from Mr. Tennent to put up brattice-cloth at the No. 1 entrance. We did so, and made a pretty tight job of it—as well as we could do for a brattice-stopping. We were then sent over the hill to take the trucks out. There was no smoke then, as it was at the bridge side. We took out thirty-four trucks, I think. That was all we did that day, I think, as it was evening. Next day we made a start with the fan.

46. Tell us all about the fan?—A number of men took the fan from the old site and put it at the mouth of the mine at the bridge-site.

47. What was that for?—As far as my judgment goes, that was a grave mistake, because the fan made the fire burn more fiercely. The effect was to draw the fire into the main tunnel, in my opinion. The fan was erected in about forty hours. Some of the men actually saw the fire in the main tunnel, but I did not see it. The fan was working for a half or three-quarters of a day, and the speed of it was pretty high sometimes. Sometimes it would go hard—sixty, seventy, and eighty revolutions, and so on. They stopped the fan in the evening for a while, and then started again for a little bit. It was then stopped for three days and brattice-stopping was put in the mouth. We did not do anything at all for a few days. We started to put in a dam three days after the fire. The dam was completed in about twenty-four hours. It was put in the tunnel. I reckon the dam should have been put in No. 4. The tunnel was cleared that night, and there was neither foul air nor smoke. After they made a start on the dam I inquired from Mr. Tennent and Mr. Roland Broome what they were going to do with the new rope that went right through the mine. Mr. Tennent said he did not know. I asked Mr. Roland Broome, and he did not know quite what to do. I proposed to get steam up and pull the rope out. I was sent away to get the engine-driver, and after he got steam up he broke the rope the first pull. I tried to get the ends together again, but each time the chain that connected the rope broke. We lost about 15 or 20 chains of the new rope. We pulled the rope out ultimately with the engine. We worked all that night at the dam-site, and the following day we went home and another shift was put on. The dam was finished the following day.

48. It was really a block across the tunnel?—Yes; constructed of timber and clay. We expected it to hold water temporarily at the time. That finished the work for a considerable time—some weeks. After the dam had been completed the air-shaft was filled up, and then a better stopping was put in on the bridge side. No more work of any sort was done for, I daresay, a couple of months. Now, as to the log-dam. A log-dam was built.

49. What have you to say about the construction of that?—I have a great deal to say about it. I condemn the report sent in on that. On the Saturday Mr. Tennent and Mr. Hayes gave instructions to Mitchell to build the dam, but they never said anything to me about it. There was a good deal of underhand work done to make it appear that I was to blame for the leakage of this dam. On the Saturday night Mitchell came to me and told me what Mr. Tennent and Mr. Hayes had said to him. He said he had to get £20 for it. Mitchell said I was to work on the dam. I went to Roland Broome and told him about the dam, and he said he would ring up Mr. Bayfeild about it. On the following day he got instructions from Mr. Bayfeild to put in this dam. Mitchell and I were supposed to get the contract, and were to get £20 for it. The dam was built according to Mitchell's instructions. He had five or six men working on it at one time. They say I cut a log in two, in the report.

50. The report says: "Instead of placing this in Mitchell's hands, it appears the company let the work by contract to Peter Martin, a carpenter at the colliery. Mitchell informs me that he was employed with Martin at this work, and that a good base was obtained by cutting down to solid ground, but that, as the erection of the stopping was approaching completion, Martin cut a log in two to save himself the trouble of fitting it properly in a single length. A weak place was thus made, which had to be tightened up with wedges. The dam-stopping was erected from 6 ft. back from the light stopping which had previously been put in by Messrs. Dixon and Tennent to cut the air off the fire. The space between the two stoppings was filled with clay." What do you say about cutting this log in two?—All the logs in front of the dam were cut except the bed-log. We

had not the height. We had two uprights to join them. There was no leakage where the logs were cut. They were square at the bottom and let into the solid rock at each side. We finished the dam in about a week, and after paying all our men Mitchell and I divided equally the money. We left the dam for a day or two to let the water run through and allow her to settle. We then stopped her. She kept tight for about two hours until the water came up about half-way up the tunnel, when she started to leak. She always leaked after that. I know the quantity of water that came out of the mine and out of the dam, and it represented the quantity coming out of the mine. No one had passed the dam or given any certificate. Roland Broome paid us when we told him we had finished it.

51. How do you account for the dam leaking?—I believe it was owing to the construction. I reckon Mitchell did his work according to instructions thoroughly well. I do not think he slummed anything. I believe if they had got proper clay at the back of that dam she would never have leaked.

52. What was the defect in the dam?—I think the clay used for stopping was not fit to go in.

53. Who put the clay in?—Myself, Mitchell, and the rest of the workmen.

54. Why did you use it?—I suppose Mitchell was ordered to use it, or he would not have done so. He had his instructions from Mr. Tennent.

55. Do you think the timber was all right?—I think it would have been if it had had the proper clay at the back of it. This dam was watched day by day, and it was leaking all the time.

56. Where did the water come from?—It was the drainage of the mine.

57. Is the tunnel on the rise?—Yes.

58. Do both tunnels do that?—No water comes out of the bridge side. The dam got worse and worse. The ground from the mouth of the mine commenced to fall in, and everything got into a fearful state. We were not working then, neither for the company nor any one else.

59. Who was paying you for this watching?—Roland Broome paid me for any time I was there. In the meantime the fire was raging on the outcrop on the Bridge section, and we had a lot of machinery standing idle. The company began to get frightened that they were going to lose all this machinery. The caretaker decided to shift a few things on day-wages, but, previous to that, he called for tenders to shift all the machinery. Several tenders were sent in, including one from myself, which were not accepted the first time. I got the contract to remove the machinery about two or three weeks later on. I got £176 for it. I offered to land the machinery over the hill for a certain amount of money. I worked on that for about six or eight weeks. One day Mr. Tennent came over and wanted me to do something at the tunnel. He said he wanted the log-dam caulked up tight, no matter what it cost. I started on the caulking, and had a number of men employed. We worked, perhaps, a week, but when we got one place water-tight, the dam burst in another place. I had two men employed there. We got her tight overhead, where she was very leaky, but when we got her down to the floor she burst. She broke out several times in weak places, and at last we had to give it best. I expected Mr. Tennent up that morning to see what we were doing, and he came about ten o'clock, bringing Mitchell with him. He never asked me whether the dam was tight, or any question about it. He did not ask me to go into the dam with him, although I was standing outside at the time. He never spoke when he came to the work first, until I spoke to him. I showed him the leaky part, and told him he could get nothing more done. He said "Humph," and went on. He passed no remarks to the men. I felt insulted. I told the men to go on to my own works again, which I had left. Mr. Tennent and Mr. Mitchell then went over on the other side. He never said a word to me. He came again on the following Wednesday—about a week after—and said "Good morning," and I thought he was then in a better temper. I think he asked how I was getting on. I asked him if he had any money, as I was responsible for the men's wages. He said, "I have no money." Something was said about the time. I had to pay the men out of my own money for a time. He afterwards asked me about some pipes to lay from the other side of the Bridge section. He asked me if I had pipes on the works. He arranged to give me £15 to put 15 chains of pipes across Chasm Creek. The pipes were laid according to his instructions, but he did not pass any remarks. The day we got the water through Messrs. Shore, Alison, and Foster came up, also Mr. Tennent. They put a nozzle on and started to lead the water into the outcrop fire. There has been a great amount of talk about the pipes. I say that in the driest weather there was water enough in that creek to fill three 2 in. pipes.

60. What was the size of the pipes?—2 in. I blame the Government, or Mr. Tennent, or Mr. Hayes for putting in the report what is said about the water being carried by a ¾ in. pipe. I dispute that remark about the quantity of water. I do not blame Mr. Tennent for using the 2 in. pipes, but Mr. Hayes for what he states in his report. After this I went on with my work of shifting the machinery. For £30 or £40 more I would have finished my contract with the company, but I got word to cease work on a certain date. I declined to cease work unless they gave me so-much money for my contract, so they paid me, less £5, what I asked, and I knocked off work. They then started on No. 3 stopping, with Mr. Tennent in charge. I was employed by Mitchell, but was never allowed to go more than a certain distance into the tunnel. In the meantime, on the 13th and 15th May, 1900, I was asked by Mitchell to let him have one of my men to dig out the foundations for a new dam. There has been some talk about dynamite in the report, and I am prepared to find a witness who actually used dynamite in digging out this foundation. I complain of this, because I am pointed to, it is suggested, as doing some injury to the dam. I can bring a witness to prove that Mr. Tennent and Mr. Mitchell told a certain man in Mokihinui that I had been tampering with the dam timber.

61. What you complain of appears in the evidence taken before the Goldfields and Mines Committee of the House of Representatives. Mr. Hayes is asked, question 47, page 7, I–4A.: "Do

you suggest that there has been any tampering with the dams, or that any of the work that had been recommended by you had been interfered with by any private person?" Answer: "All I can say is this: In renewing the dam after leaking—I am simply giving you now the statements as I heard them—the evidence went to show that where there was a solid foundation when the dam was first put in, when taken out it was found that the ground had every appearance of having been blasted; not only that, but an unexploded plug of dynamite was found. This looks as though there had been tampering, but who it was who tampered with the dam I cannot suggest." What do you wish to say about that?—Who knows that there was a solid foundation there? Who passed it?

62. As a matter of fact, was there a solid foundation?—I would not call it a solid foundation for a water-tight dam. I was there when the bed-log was put in, and ought to know.

63. Was dynamite used in clearing out this foundation?—Not that I know of, but I have heard so.

64. Mr. Hayes says that "an unexploded plug of dynamite was found." Do you know anything about that?—No; but I am prepared to bring a witness to prove that dynamite was used. It is quite untrue to suggest that I did any injury to anything in the mine. I was never there alone. While that statement is in that report I cannot go to any mine and expect to get a day's work. Mr. Tennent and Mr. Mitchell told a party that I had tampered with the timber, and I can bring a witness to prove that.

65. Now, with regard to No. 3 dam?—In June or July we started with No. 3 dam. We rigged up the fan and boxed in the tunnel ready to use the fan again.

66. Was the fan necessary?—No; not in my opinion.

67. What was the supposed object of it?—To force the black-damp and smoke back, so as to put in another dam; but there was neither black-damp nor smoke there. They got things ready, and then put another carpenter on—a man who had had no experience in coal-mining. This man is not a carpenter, but a bush-carpenter or handy-man. He is not a tradesman of any sort. His name is Charlie Johnston. In order to get me away from these works Mr. Tennent and Mr. Mitchell went in an underhand way about it. There was part of the machinery contract that was left behind, and, as an excuse to prevent me from getting into the tunnel to see the dam at No. 3, and to get me out of the road, they let me a contract to finish the machinery job I had had before. This was to remove the machinery which had not been finished under my former contract. This was a dodge to get rid of me. When I finished that job there was no more work for me.

68. What was the machinery job worth to you?—£50.

69. How many men did you employ?—Nine, I think. There was no more work for me, as they served me out, and I have not been employed by them since.

70. What do you say about the means employed on the Sunday and Monday after the discovery of the fire? Have you any fault to find with the methods adopted? What do you say ought to have been done?—I am not an expert mining-engineer, but I think the mine ought to have been sealed off in ten or twelve different places at once—in No. 4—and a dam put in the main tunnel at No. 4.

71. Do you think the fire broke out on Sunday, the 28th January, originally in the first place it was seen?—No; I do not think it broke out on the Sunday. As far as my judgment goes, I think it broke out on the Friday night.

72. Do you think there had been any fire in the mine before Friday?—No.

73. What makes you think it broke out on the Friday?—The statement of Mr. Keal and his family, who said they smelt the smoke coming out of the tunnel on Friday night.

74. Do you think it possible that the fire had been alight for some considerable time?—No. Although I am not an expert, I have had nine years' experience at Mokihinui and Cardiff Mines. I was up the long jig with Mr. Broome the week before the fire is supposed to have happened. There were a lot of tops broken down, and he said he was pleased to find this part of the mine as he did. Two days after that McIndoe and myself were sent up to clean up a gutter.

75. *Mr. Cottrell.*] Do you consider that Mr. Tennent did all in his power to stop the fire at first?—No, I do not consider he did. That is my opinion.

76. Do you consider that he spent sufficient time up there, to start with?—I reckon the man did not do his duty by not taking a firm step at once.

77. You do not consider that Mr. Tennent did all in his power to put out the fire?—That is a very hard question to answer—whether he could put the fire out or not.

78. Do you consider that he did all in his power to do so?—No.

79. Why?—On Mr. Tennent coming up at half-past seven he took an hour or so before going into the mine. I reckon he should have got men there and gone into the mine at once and started work; but he just went in and came back again.

80. You think he should have gone into the mine at once, and started to seal it down?—Yes.

81. How long was it after Mr. Tennent got out there before he went into the mine?—An hour.

82. During the next week or two was Mr. Tennent absent from the mine often?—Yes, he was a good deal absent. A good deal of blame was attached to Mr. Tennent, as he was the only man we looked to in that district in such matters.

83. Did he leave any one in charge when he was absent?—Yes.

84. He left Mr. Mitchell in charge?—Yes.

85. Do you consider Mitchell to be a competent man?—I do not. I think the man ought to have had a certificate, and not a man like Mitchell.

86. When Mr. Tennent was there did he give proper orders to the men?—Yes. We all looked to Mr. Tennent as the boss.

87. When Mr. Tennent was away, do you consider that there were times when certain works ought to have been done, and that they were neglected?—Yes.

88. When?—Especially the first three days after putting the fan on, and leaving it on. I reckon that was the great fault against him. I would not say it was Mr. Tennent's fault altogether, but he was the man we looked to to put out the fire.

89. Is there anything else in which you consider Mr. Tennent did not do his duty?—I have a grievance against Mr. Tennent for the way he treated me when he came out to give me instructions about caulking the No. 2 dam. I took his attitude against me then to be an insult.

90. *Mr. Harden.*] Did you and Mitchell take a contract to construct this No. 2 dam at the main entrance?—Yes.

91. Is that the dam you say leaked because the clay was not good?—Yes.

92. I suppose you do not blame Mr. Tennent because you and Mitchell did not use good clay? You contracted to put a dam in to stop the water?—I do not say it was. It was to put a dam in according to orders that Mitchell got from Mr. Tennent.

93. *The Chairman.*] Was it to construct a dam according to specifications?—No, there were no specifications.

94. *Mr. Harden.*] You say that Mr. Tennent was an hour out there before he began to attend to the fire?—Yes.

95. You have never been mining, but you have only been about a mine?—Only as carpenter.

96. You have not read books on the subject and worked out the theory?—I have read books to tell me about building a dam to hold water.

97. And yet you built a dam which would not hold water? What was the object of the dam?—To keep back the water. There was no one there to say whether we did what was wanted or not. It was not mentioned to me.

98. You understood that this dam was to hold back the water?—Yes.

99. Who was Mr. Mitchell?—An underground manager.

100. Was he a practical miner?—I would not say that.

101. Was he employed by the company as an acting-deputy mine-manager?—Yes, at that time he was.

102. Was he a man in whom you had confidence in the construction of works of this kind?—Yes, up to a certain extent.

103. As a deputy he must have held a certificate?—No, he had no certificate at that time. He was only put there as a temporary deputy when James Marshall left.

104. You knew him as a miner?—He started on Denniston, at the time of the strike, as a new hand, and had never been in a mine before.

105. Were you up at the mine when Mr. Tennent went out and decided to put in this dam or stopping?—He was there about 9 or 10 o'clock that night.

106. Had you been in the mine before that, between the time the fire broke out and Mr. Tennent got the fan on?—I had been in the main drive.

107. Supposing the fan had not been going, could you have gone in there?—I think so, if I had watched the current of air.

108. Would not the fan create a current of air?—Yes; but it had too much power all over the mine.

109. Your complaint is that, months afterwards, when looking at the matter coolly, you consider that he gave too much air in order to enable men to enter the mine and examine it?—Yes.

110. Supposing you had not watched the current of air, and that the fan had not been going, what would have happened?—Nothing would have happened.

111. Do you mean to say, as the father of a family and a sensible man, you would have gone in there if there had been no fan going?—I might have done it. I have done it before when we had no air.

112. You told us that permanent stoppings had been put in during the previous twelve months—tongued-and-grooved stoppings?—Yes.

113. What kind of stoppings were they?—Just closed up with brattice.

114. Were there any bords that had not been closed up with brattice during that twelve months?—I am not an expert to say whether they were bords or faces.

115. Did you put in those stoppings?—Yes.

116. You said that you found an air-shaft?—Yes.

117. Was any furnace used there?—Not for years before.

118. You told us, with reference to No. 1, that it was clear when you first went there, but when you went over the hill on the bridge side the smoke was there?—Yes.

119. Was smoke coming out of No. 1 when you came back?—It varied from time to time.

120. What kind of fan was it?—A big steam-fan.

121. How many feet diameter was the fan?—3 ft. 6 in. by 10 ft. or 12 ft. high. Across the wheel it would be about 2 ft.

122. Was this fan blowing the air into the mine or drawing it into the mine?—Drawing it. It was put in the open mouth of the mine, and we closed and boxed it in.

123. Where was she drawing the air from?—From No. 1, right through the mine.

124. Did you not say that the fan was put in to force back the foul air and the smoke?—Yes, at No. 1.

125. *Mr. Lomas.*] With regard to the dam spoken of, what kind of ground was it at the sides and bottom?—It was a rocky bottom.

126. And how deep? Did they cut in below the rails?—They did not cut into the solid rock at all, to my knowledge. They cleaned it out, but did not cut into the solid rock.

127. What was the rock?—It was just dirt and coal, and so on,

128. Did they cut into the side of the coal?—It was not coal they cut into at the sides. It was all rock.

129. What kind of timber did you use?—Sawn timber, except the two uprights.

130. What thickness was the timber?—Almost all was 6 in. by 12 in.

131. Whereabouts was the log-dam put in?—Was it nearer to the mouth than the other?—We asked Mr. Tennent to show us the place where he was going to put that No. 3 dam, and he would not tell us.

132. Are you quite positive there was no one in authority who said anything at all about the kind of foundation that should be put in for this dam?—I am quite sure that no one said anything to me about it.

133. Was the clay put in loose or puddled?—It was puddled—a greasy kind of clay.

134. What was the size of your wedges for caulking purposes?—They varied.

135. Did you find any of your caulking come out again at all?—Yes, it was like a shower-bath all over the place.

136. Did you just get wedges and drive the clay in in a loose way?—Yes; we drove it as well as we could. The timber was right enough.

137. Do you think it was the force of water that lifted the floor?—I do not think there was any break in the bottom.

138. Was there a leak in the bottom?—The bottom never gave way, and I do not think anything of that kind happened.

139. After the water came out of the pipes you put down, where did it go to?—It just ran down towards the mouth of the tunnel and out of it again.

140. You say that what Mr. Hayes has said about the quantity of water there is not true?—Yes, I do.

141. You say that if No. 3 dam had been put at No. 4 it would have saved the mine?—It would have saved the north block.

142. Was there no fire between the main road and the mine-mouth?—There never was fire down there. It would have saved the block of coal showed on the plan.

143. *Mr. Proud.*] A hand-fan and pipes, I suppose, were not procurable?—We had one on the works.

144. But you would have wanted pipes as well?—If we did not use a pipe for the big fan, why should we use pipes for the small fan?

145. Do you think a dam could have been put in much nearer to the fire?—Yes; and the whole of that north block ought to have been saved, in my opinion. I heard that Mr. Corby made an offer to the Minister of Mines to put the fire out for £500, and did not expect to receive anything if he did not succeed. There was not much fire in the mine then.

ROBERT TENNENT, examined.

1. *The Chairman.*] What are you?—Inspector of Mines for the Nelson, Marlborough, and Westland Districts.

2. *Mr. Harden.*] Will you kindly make any statement you wish to make regarding the fire at the Cardiff Mine?—About noon on Sunday, the 28th January, 1900, Mr. Roland Broome, caretaker of the mine and brother to the late mine-manager, informed me at my residence that a fire had broken out in the Mokihinui Mine. This statement did not at first alarm me, as I knew that fire always did exist in the Mokihinui workings since the year 1894. I and Mr. Broome went to the Westport Stationmaster, and arrangements were made to proceed by tricycle to Mokihinui. Reaching Cardiff at half-past seven o'clock, I went direct into the mine at the main entrance and proceeded round the first curve until my light was lost. It was put out by the gases. I could see that nothing could be done that night to reach the seat of the fire. The brattice was then nailed down satisfactorily across the mouth of the drive. Early on Monday morning, the 29th January, I went up to the mine and entered by the main entrance tunnel to near the second stone drive, about 14 chains in. Coming outside from that point I found that Mr. Dixon had just arrived. He was manager at Granity Creek Colliery. Mr. Dixon and I then proceeded about 15 or 16 chains in the main tunnel until we saw the air-current reversing. We turned back then and visited the North block old workings, and satisfied ourselves that fire did not exist in that region. Coming back on the main haulage-road, we found the gases before us, and we had to make our way to the daylight—to the tunnel-mouth. We then decided to go over the hill to the bridge-end tunnel. Smoke was issuing from the bridge end of the main tunnel, but after a few minutes the current changed, and we then got in about 10 chains into the drive. Finding it impossible to proceed further on account of the gases, we ordered the haulage-trucks to be taken outside and the tunnel bratticed off; also an opening at the old ventilation fan-drift was bratticed off. Going back to the main entrance, the smoke and gases were very strong, and it was with great difficulty we could get the brattice put down and made tight. Mr. Dixon and I decided then to remove the ventilating-fan from the Bridge section of workings and build it at the main-tunnel exit to bridge. This work was put into the hands of P. A. Mumm, who had been formerly engineer at the colliery. As my duties compelled me to leave to supervise the mine-managers' examinations at Reefton, I left on the 29th January, the mine being temporarily sealed down. Mr. Dixon left along with me and returned on the Wednesday. I was not present again at the mine until the 5th February. Mr. Dixon was left in charge. He was appointed to take charge on Monday, the 29th January. On reaching the property on the 5th February, I found everything satisfactorily sealed off as Mr. Dixon had left it, and before opening any of the stoppings I went over to the bridge end of the property, when I found active fire burning through the grass on the highest points of the Hannah Hector outcrops. Giving instructions to start the fan, I went back then to the main entrance and opened the stopping. Heading a party of ten men, I proceeded to the junction of the furnace drift, where fierce fire was discovered ahead in the main haulage-road, and a dense volume of heated smoke continued to roll down the furnace drift, so that it was impossible for man to live

two minutes in that atmosphere. Satisfied then that nothing could be done to save the property, I determined to seal off the mine permanently about 2½ chains in from the daylight. A strong party of miners were put on to prepare the wall-sides for the stopping, and the work was carried on continuously all the following night and day. About midnight on the 5th February a most extensive fall or explosion occurred inside the mine, and if we had been further in the tunnel all the workmen employed there would have been lost. This fall cut off our ventilation from the fan, and it was with great difficulty that the inside wall of the stopping was closed from the black-damp gases that were forcing back towards us. However, we closed that by three o'clock in the afternoon, and on Wednesday we completed the whole work. The dam was built with two walls of 3 in. planking, with 5 ft. of solid puddled clay between them. On Thursday morning we went to the bridge end of the tunnel and built a similar air-stopping there. The gases were not so bad at that end. We finished that work at six o'clock that night. On Friday morning we started to fill the furnace shaft, this shaft having been securely covered over previous to opening it for some days. After a hole had been cut through the covering, a flame burst through to a height of about 150 ft. This work was completed at two o'clock in the afternoon, and the shaft filled to the surface. I might mention, in connection with the shaft, on the Thursday night that Mitchell and I came over to colliery office, the caretaker, Roland Broome, instructed me from the company: "Tell Tennent to do no more in the way of putting out fire, as we cannot stand the expense." I did the work on the Friday on my own responsibility. There were ten men employed.

3. *The Chairman.*] Who paid the men?—The company paid the men afterwards. That was the end of operations until the 24th February.

4. Did you spend any money belonging to the Government on it?—No.

5. You had no authority, I suppose?—I had no authority. Mr. Hayes then came on the scene on the 24th February. Having received £20 through Mr. Bayfeild, the local agent of the Cardiff Company here, to build a dam in the main entrance behind the main stopping—that is, the water-dam—the conditions were that the dam was to be made effective, and I would see to the additional cost. I entrusted the work to Mr. Mitchell, who was the underviewer of the company, making provision that Peter Martin was not to be employed in the work.

6. Did you give reasons for that?—No; only we both understood that he was a man who would not do the work to our satisfaction.

7. Why did you stipulate that he was not to be employed?—Because I knew that he would not do the work to my satisfaction.

8. *Mr. Harden.*] Had you had him working before?—Yes. Mr. Hayes and I then left, and it being his first time on the Coast we made a tour of the alluvial mines on the Coast, and I returned back in three weeks. By that time the dam was finished, and the water was to the roof. There was a little leakage behind one of the upright props, but not of much consequence.

9. *The Chairman.*] Is this the occasion of which you heard Mr. Martin speak complaining of your conduct when you came?—No. On the 25th April I met Martin at the bridge side of the property, and asked him if he could take up the leakage in the dam at that time, and he said, "Yes, quite easily." I instructed Martin to put the dam right. That was on Wednesday, the 25th April. On Saturday, the 28th April, Roland Broome telegraphed, "Think dam tight to-night." On Wednesday, the 2nd May, accompanied by Mitchell, we met Martin in the mine-entrance cabin. Having entered the mine we found a large body of water boiling up from under the bed-log. I then asked Martin if nothing more could be done to save the dam, to which he hesitatingly replied, "I do not think so." This matter was reported to the Mines Department, and instructions were given to me to proceed with another dam, which I accordingly did. The new dam-seat was partly excavated, but I could not attend to it at the time, and I told Mitchell to let the work stand. Messrs. Shore, Alison, and Foster at this time came on the property. On the Saturday they cut a man-hole through Martin's dam with the object of getting into the mine. The black-damp was so dense that they could proceed no further. They did get beyond the front of the dam. On the 18th June, by authority of the Minister of Mines, I was instructed to take any steps I chose for the saving of the property. The Commissioners (Messrs. Shore, Alison, and Foster) having made a remark as to the opening of the mine, I determined to carry this out, and built a ventilating-fan at the main entrance with the view of forcing the gases backward through the outcrop openings. The air-stopping was then cut, when we found the tunnel choked. It was sufficiently choked to form a natural dam in the tunnel, and prevented the water from coming out, except very little. Mr. Hayes then decided to finish the dam that I had started. Two days after the miners had started excavating the old dam-site a large open fissure of water was struck. Knowing it was useless to proceed further with that work, I decided to remove Martin's dam, and built a new dam on that site. Cutting down to the bed-log, Charles Johnston—I was present at the time—reaching down his hand to clear some *débris* from the saw, lifted an unburned plug of dynamite, and, after carefully examining it, I told him to throw it back into the water.

10. *The Chairman.*] Why?—I did not see at the time any reason for keeping it. I then left the tunnel and went over the hill to the Bridge section.

11. Looking at it in the light of recent events, how do you account for the dynamite being there?—The man that shifted the stuff will give you the evidence. There was no use for the dynamite in the mine, and I know there was no dynamite used for cutting any of the dam-seats.

12. *Mr. Harden.*] What have you been informed since about this dynamite?—I cannot tell you about it. There is only one man who knows anything about it besides myself.

13. What did you hear about it?—I knew from the character of the stuff under the bed-log that the ground had been shot. There had been a considerable explosion. We finished the dam on the 9th August. Mr. Hayes, Mr. Dixon, and I, considering that the waters would overflow at the subsidence over the North block (No. 5), we decided to leave the tunnel-exit as it was at that time until the mine-water flowed through the tunnel into Chasm Creek. The water flowed through

the tunnel about three months ago. Since that time we have built another dam behind the air-stopping, which was finished on the 4th January, 1901. The water is now rising on the outcrops, and that is all that can be done for it.

14. *The Chairman.*] Do you expect to extinguish the fire?—We can raise the water 30 ft., by aneroid measurement.

15. Will that put out the fire?—Not beyond that height. The fire is now confined to the extreme point of the Hector outcrops, and I do not think there is any danger of it extending. As far as I know, everything has been done that can be done to extinguish the fire.

16. Looking back now, have any mistakes been made, do you think?—No.

17. Will you tell us what quantity of coal has been destroyed?—Practically, I do not think there is a pound weight destroyed.

18. Why not?—The coal that has been burned is the exhausted pillared outcrops of the Hector block.

19. It could not have been worked?—No, it was exhausted pillared.

20. There has been some talk about it being a danger to the forest?—During the excessive dry weather before Christmas there was some of the scrub on fire.

21. Do you think there is any danger in that direction?—No.

22. Why not?—There will be no danger now from this time forth for a considerable time. There was a fire over the whole hill-top extending over the Cave section area, but we could not do anything, as there was no water. There has been very little flame to be seen all the time.

23. When do you expect the fire to die out?—In a few months. It is being overcome with water and want of air, and the outcrops appear to be full of earth. Until the outcrop is burned down to the water-level the mine cannot be worked. That particular section of the mine was practically exhausted and work had ceased fifteen months before the suspension of the company.

24. What, in your opinion, was the origin of this fire?—I think it originated in the Hector pillared outcrops on the No. 2 incline, owing to what I should call pressure on the pillars.

25. *Mr. Lomas.*] You say the whole of this Hector block is taken out?—Yes.

26. Did they take out the whole of the pillars?—Some they did, and some not. They took out the whole of the pillars from the floor to the top.

27. What they could not cut they would leave?—Yes.

28. Did they leave much?—Not unless it was very soft.

29. It was chiefly coal that was left, and which they could not get?—Yes. I believe it was through pressure from the outcrop that caused the ignition.

30. What is about the acreage that was burned?—It might be 10 acres.

31. How can you account for the smoke coming out of the hill tunnel when there was none before?—We could never depend upon the ventilation in the mine. There was no ventilation, except natural, through the tunnel.

32. You said that when you came back from Reefton Mr. Dixon was in charge, and everything was sealed up satisfactorily; that Mr. Dixon had sealed it up?—The bratticing was just as I had left it on the Monday.

33. Were the walls so spaced that the dam would cut off the air and water?—The stopping was built in dam-fashion, but not built with a view of holding the mine-water, although sufficiently strong to resist the pressure.

34. How was it that Mr. Martin was associated with Mr. Mitchell when you had given instructions that he was not to be employed?—The caretaker put him on.

35. With regard to the plug of dynamite, was it underneath the bottom of the sill of the dam?—Right under the bed-log.

36. Was the bed-log damaged or bruised at all?—No; I did not see it taken out.

37. Do you think it would have been damaged by a shot, if a shot had been put right under it?—It might be cut a little, but it was not broken up in any way.

38. *Mr. Proud.*] Was the whole of the smudge taken out of the mine in the working of the coal?—Everything was filled out of the mine. There was no riddling.

39. That gives rise to combustion, does it not?—Yes.

40. Were there no means of getting near the fire?—No.

41. Had you no apparatus to enable you to do so?—We had smoke-protectors there.

42. Had you the Fleuss protectors?—No.

43. You had no means of getting in to see where the fire was?—We had no particular reason to get into it. If there had been lives to save it would have been different.

44. But if you had closed the airway as near the fire as practicable, would not that have helped you?—The fire was directly on the main haulage-road when I found it, so that there was no possible way of cutting it off.

45. I understood you to say the fire was in the Hector outcrops?—Yes; Mr. Dixon discovered fire in the long jig.

46. Could you not have sealed the fire further in than you did?—It was with very great difficulty that the stopping was put in; and if we could there was nothing to be gained by it, as the mine was exhausted.

47. Could you not put stopping in the return airway?—It was a direct air-current, and the fan pulled the air right through the mine. There was no return airway back. Each ventilation district turned into the main current.

48. You really drew the air through the fire?—Yes; when we opened the mine-entrance in June we reversed the fan, turning it end-on, and forced the air into the mine. We did it with air-doors on the air-lock principle.

49. *Mr. Lomas.*] When drawing the air through, did it not also draw the air over the fire?—It would have a tendency to do that, but there was no possibility of getting into the mine except by putting air in. After all the examinations we found that the seat of the fire was in the outcrops.

50. *Mr. Proud.*] Do you think the fire had been burning some time before it was discovered?—I am inclined to think so. I was in the workings on the 9th October with Mr. Hayes.

51. *The Chairman.*] The mine was not examined from the 18th January to the 28th January, until the fire was discovered?—No; that was the last official inspection by Mr. Broome, on the 18th January.

[N.B.—Evidence continued at Seddonville, 24th January, 1901.]

WILLIAM CUNLIFFE, Miner, examined.

1. *The Chairman.*] Were you at one time working at the Westport Cardiff Mine?—Yes.

2. Between what years?—It is about three years since I went there first. I was working there two years before the mine stopped.

3. What were you doing at the time the mine took fire?—Working on a contract for making a road, under the co-operative system, for the Government.

4. Did you go into the mine with Mr. Dixon?—Yes.

5. When?—It was on a Friday. I do not remember the date.

6. Who else was with you?—Mr. Mitchell.

7. Was Mr. Tennent there?—No.

8. What did you see, and what did you do?—They got to work on the Friday morning. The fire had been discovered on the Sunday previous.

9. Had you been in the mine before?—On the Wednesday after the fire was discovered I was 2 or 3 chains in the mine putting a stopping in to keep the smoke back from the men erecting the fan.

10. Did you go into the mine on the Sunday, Monday, or Tuesday?—No.

11. Have you any idea where the fire was?—I saw the fire on Friday at the back heading—that is, No. 1 heading in the long jig. We stooped down and saw the fire at a distance. I was standing in the back heading a few yards up the rope-road.

12. Was it possible to put in any stoppings up there?—Yes.

13. Why was it not done?—I cannot tell you why it was not done, but when we got past the heading in the long jig Mr. Dixon had a canvas put in between the long jig and the back heading.

14. Was it properly put in?—Yes, it carried air up the back heading.

15. Was it to keep it off the fire?—It seemed to be to put it on the fire.

16. Do you know whether that was taken away again?—After he had blocked the air on the main road he put a canvas up in the back heading.

17. *Mr. Lomas.*] How far from the fire were they?—3 or 4 chains.

18. What was the effect of that stopping?—To drive the air on to the fire.

19. Do you think that ought to have been done?—I do not.

20. Do you know why he did it?—I think he did it to have a look at the fire.

21. Could he have looked at the fire without it?—He wanted to get closer to it than where we were standing. He pulled the canvas down again out of the back heading in the main road. That would cause the air to go on the fire.

22. When did you go in again?—I have not been in since.

23. *Mr. Proud.*] What size did the fire appear to be when you saw it?—Looking up the back heading you would not think it would be more than a fire in a grate.

24. Do you think there would have been much difficulty in getting it out if you had got up to it?—It is hard to say what was behind it.

25. *The Chairman.*] When was it seen in the outcrop after that?—I never saw it on the outcrop at all. We saw smoke in the outcrop at Chasm Creek before the Friday after the Sunday on which it was discovered.

26. *Mr. Proud.*] Do you think it could have been sealed off?—It would have been better to have done so.

27. *The Chairman.*] There must have been a vent coming from the outcrop?—Yes, there must have been a vent.

WEDNESDAY, 23RD JANUARY, 1901.

CHARLES NORMAN GREENLAND, Secretary of the Westport Harbour Board, examined.

1. *The Chairman.*] At the request of the Commissioners, I understand you have prepared a tabulated statement showing the cost of the works carried out under the Westport Harbour Board?—Yes. This is a memorandum of expenditure from 1st January, 1885, to 31st December, 1900: Ordinary harbour management, £53,772 14s. 7d.; interest and sinking fund, £271,246 9s. 5d.; harbour works, £589,198 19s. 11d.; Westport-Ngakawau Railway, £66,031 7s. 6d.; Extension of railway, Ngakawau to Mokihinui, £37,288 18s. 8d.; purchase of Mokihinui Coal Company's rail-railway, £15,745: total, £1,033,283 10s. 1d. Funds for the above expenditure have come from the following sources,—viz., from Revenue or General Account, £413,283 10s. 1d.; Loan or Special Fund Account, £620,000.

2. The total annual revenue amounts to how much, in round numbers?—We received last year £35,500; 1899, £41,000; 1898, £40,000; 1897, £33,000; 1896, £27,000; 1895, £28,600; 1894, £24,300; 1893, £24,000; 1892, £20,211; 1891, £28,695; 1890, £14,497; 1889, £24,970; 1888, £13,551; 1887, £15,429; 1886, £17,683; 1885 (the first year), £8,107. The Board was constituted in 1884, but the Board did not get any revenue until the following year. The large falling-off in 1890 was due to the marine strike.

3. What endowments have the Board got?—They are under the Westport Harbour Board Act, and are called the Buller Coalfields and Westport Collieries Reserve. The western side of

Palmerston Street, Westport, is a colliery reserve, and the Board gets the rents, yielding about £850 per annum.

4. Have you any idea of the revenue you get from the coalfields?—The royalty is 6d. per ton.

5. Where are the royalties paid?—To Mr. Humphries, at Nelson. Last year we got £9,372 rom rents and royalties, and we received from the railway and wharf £23,795 net revenue.

6. Your revenue was £35,500?—Yes.

7. Your annual interest and sinking fund amount to £25,494?—Yes.

8. How many coal companies are there operating in the field?—Two at the present time—the Mokihinui Co-operative Company and the Westport Coal Company (Limited).

9. You also produce a resolution, I think, passed by the Harbour Board?—Yes. It is as follows: "That the Board should represent to the Coal-mines Commission now sitting in Westport the advisability of the Government opening a State coal-mine on the Buller Coalfields to supply their own requirements, and for other purposes which may be necessary."

10. This resolution was duly carried at the last meeting of the Board?—Yes, on the 21st January, 1901.

11. Can you give me the tonnage of the vessels and the export of coal for last year?—Yes. It amounted to 379,217 tons—an increase of 41,551 tons for the year for the Westport Coal Company.

12. What were the figures for the whole port?—362,898 tons; but that does not represent the exact tonnage of the steamers.

13. Out of that how much did the Westport Coal Company export?—In 1899, 327,932 tons. In 1900 they put out 369,484 tons out of the total. I make that a difference of 41,551 tons in excess of 1899. During the year 1900 there were 924 steamers and twenty-one sailing-vessels entered the port, aggregating 343,138 tons. Those were the arrivals. In the preceding year there were 934 steamers and thirty-three sailing-vessels, representing 327,031 tons, showing a net increase of 16,107 tons for last year. The average depth of water for 1900 on the bar was 22 ft. 2 in., and in the river 19 ft. 5 in. During the previous year (1889) it was 21 ft. 9 in. on the bar and 19 ft. 9 in. in the river.

14. What was the largest load you ever sent out in one bottom?—3,689 tons, by the "Pennarth," to Hongkong, for the Admiralty.

15. What did she draw?—About 18 ft. 2 in. or 3 in.

16. The yearly expenditure of the Board is about £5,000?—Yes; on what we call the ordinary harbour expenses, and the balance is available for further works.

17. Are there any further works in contemplation?—Yes; we are raising and extending a training-wall. Further works are to be carried out on the eastern breakwater, which will be raised to high-tide level, which Mr. C. Napier Bell considers will give 2 ft. extra depth of water on the bar. It is further proposed, when means are available, on the advice of the Board's consulting engineer, Mr. C. Napier Bell, to extend the eastern breakwater until it is abreast of the western breakwater, which now overlaps 400 ft., and then to extend both breakwaters 600 ft.

18. What did you spend last year outside your £5,000 for ordinary expenditure?—We have two accounts—a Revenue Account and a Loan Account. Last year we spent £12,591 on harbour works, £11,649 on railway equipment under the Railway Authorisation Act: making a total of £24,240, besides paying £25,494 on interest and sinking fund.

19. You get about £9,500 for royalty on the coal?—Yes, that is what we got last year.

JAMES SAMUEL SUISTED, Chairman of the Westport Harbour Board, examined.

1. *The Chairman.*] You have heard Mr. Greenland's evidence?—Yes.

2. Do you agree with it?—Yes.

3. Have you anything to say with regard to the resolution in reference to a State coal-mine that was passed by your Board?—The only thing I can say is that I have not given the question very great consideration. Certainly, the Government should be the proper persons to say whether it would be advisable to open a State mine or not. Looking at the matter from the members' point of view, we are of opinion that the Westport Colliery Company have done all that it was possible for one company to do. Probably, as a single company, there is no other in the Southern Hemisphere that is sending out so much coal. But the Board seems to recognise that the Westport Colliery Company have very nearly arrived at the maximum amount of coal that they can put out, at any rate, for some years to come. It is quite possible that in another year or two they may reach an output of as much as 600,000 tons; but from all that we can learn that will not be sufficient for the requirements of the colony alone, without reckoning any foreign export. It is most desirable in the interests of the Board that as much coal as possible shall be shipped from Westport. The more coal that is shipped, the more revenue the Board receives, and, with an enhanced revenue, we should certainly be able to carry on more extensive works in the interests of the colony, port, and district. I think that is the view the Board took at the last meeting, and which caused them to pass the resolution which you have before you.

4. Are there any areas available on which coal is known to exist?—There are—very large areas.

5. I mean in a sufficient degree to make it a payable undertaking?—There is a very large area at Cedar Creek of proved coal. To tap it the engineers are of opinion that the line would have to go up the Waimangaroa River. Then, there is another area at Ngakawau.

6. Have you anything to say with reference to further survey?—In my opinion it would be very desirable if the Government were to cause a geological survey to be made of the areas where coal is known to exist, and in the event of them not caring to undertake the prospecting, if any company were formed it would only be a fair thing for the Government to subsidise the company

to the extent of pound for pound after the areas had been reported upon by a Government geologist.

7. I suppose you do not know where the records of Mr. W. M. Cooper's geological survey are kept?—I think they are in Dr. Hector's possession, in Wellington.

8. They are not in Westport?—I think not. I believe the only Government geological surveys were made by Mr. Cooper and Mr. Denniston. I may say that a company—not registered yet—has subscribed some £1,400 or £1,500 for the purpose of boring on the flats here. I understand they have been communicating with the Government on the matter, asking that they might receive some assistance, either in the shape of a subsidy or the loan of boring apparatus, and also that, in the event of them striking coal, they should have the first right to the area; but there seems to be some difficulty in the way in the shape of an empowering Act being required. I think it is highly desirable that assistance should be given by the Government, and also that a geological survey should be made.

9. Do you know whether there are any large areas held under mere applications for leases?—I do not know of my own knowledge. Unless it might be that one I referred to at Cedar Creek, I do not think there are any leases in existence.

10. Is there anything more that you wish to lay before us?—I think not. The desire of the Board has always been to have as large an output of coal as possible, and if the present companies cannot supply the demand we should, of course, be very glad to see some other concerns opened from which the demand could be supplied. Whether that should be done by private companies or by the Government is a matter for consideration more particularly on the part of the Government. With our present wharfage equipment we could deal with a very much larger quantity of coal than we put out at present. I think there ought to be some system of differentiation in the haulage-rates on the railway, under which, where fresh areas are taken up at a greater distance from the port than the existing mines, the charges should not be so excessive as to prevent companies making a success of their undertakings.

JAMES SCANLON, Mayor of Westport and Member of the Westport Harbour Board, examined.

1. *The Chairman.*] Will you assist the Commissioners by expressing your opinions upon any of the matters into which they are now inquiring?—I have listened to Mr. Greenland's evidence, and also to Mr. Suisted's, and feel that I cannot add much to what those gentlemen have said. I might suggest, however, as I understand that there is a great outcry throughout New Zealand about the price of coal, that if the haulage-rate were raised according to the price of coal it would to a great extent keep the price of coal within reasonable bounds.

2. That the haulage-rate should be proportionate to the price?—Yes, that is so. Again, with regard to the different classes of coal, some are less valuable than others, and I think the principle of differential rates should apply to them. The Mokihinui, as worked at present, is only a steam-coal, and I consider it is hardly fair to charge the same rate of haulage on steam-coal as for household coal. The same thing applies to the shipping companies. At present the harbour-works are carried out for the benefit of the Union Steamship Company, and they appear to put their prices up and down as they please—mostly up, and very seldom down. Mr. Suisted suggested it would be well to consider the necessity of subsidising prospecting operations, and I would suggest the application of the same principle to the shipping companies as well as opening a State coal-mine. I understand that at present the Mokihinui co-operative coal-miners are paying more per ton for freight on their coal by steamer than the Westport Coal Company.

3. *Mr. Lomas.*] Is that extra freight paid to the Union Company?—Yes.

4. The Mokihinui Company are paying more for freight to the Union Company than the Westport Coal Company?—I understand so, but I cannot be positive on the point.

5. *The Chairman.*] With regard to a geological survey, are the outcrops of coal, in your opinion, sufficiently known?—I hardly think they are. In fact, we have been trying privately to get a survey of the kind undertaken by the Government. It was mentioned at a deputation by Mr. Suisted, myself, and two or three others when we went to Wellington. In connection with the equipment of the port and railway, I might mention that it is equal to an output of at least half as much again.

ROBERT AUSTEN YOUNG, Engineer to the Westport Harbour Board, examined.

1. *The Chairman.*] You have lived in this district for how long a time?—Twenty-four years, but my business led me here before then.

2. Do you know the Buller Coalfield very well?—Yes, portions of it.

3. Which portions especially?—The Coalbrookdale plateau, and something of the Ngakawau and Mokihinui fields.

4. Were you engaged surveying there?—I was engineer for the Westport Coal Company and for the Union Steamship Company's mine.

5. Prior to that had you done a great deal of survey-work?—Yes; I was employed by companies who had taken up coal areas, or which proposed to take them up.

6. Do you know what areas are held under lease now?—I can tell you very closely. The Westport Coal Company hold a little under 2,500 acres at Coalbrookdale and 4,000 acres at Millerton. A lease is held by Mr. H. R. Cooke, in the Coalbrookdale area, of 1,200 acres. I cannot say whether the Mokihinui co-operative people have had a lease granted to them or not.

7. Can you say whether there is much coal-bearing land opened?—Not very much, outside of the Westport Coal Company's areas. Of course, there is the Cardiff area. There is land at Coalbrookdale that could be opened which, in my opinion, would be very valuable.

8. Would there be much chance of getting a lease? Is there much land not applied for?—Not to my knowledge, at Coalbrookdale.

9. Supposing we were looking for an area with a view to the opening of a State mine, where would be the best place to go?—I think, at Coalbrookdale there is the best area not opened that I know of. In other places the coal is isolated, or patchy. [Geological map for 1874 to 1876, drawn under the direction of Dr. Hector, produced.]

10. Are you well acquainted with the surveys made by Mr. Cooper?—Yes; I was on the field at the time. Mr. Cooper did the survey-work, being associated with Mr. Herbert Cox and Mr. Denniston as assistant geologist and coal-viewer respectively, under the instructions of Sir James Hector.

11. Is that work sufficiently up to date, or is there any valid reason for saying that further work is required in that direction?—I think the map produced is up to date, and, as engineer to the Westport Coal Company and Union Steamship Company, I may say that we found it exceedingly accurate.

12. Would you recommend that anything further in that direction should be done?—There are other places well worth exploring. There is the Mackley or Orikaka district, which is known to be coal-bearing, and which has not been much prospected.

13. What is the extent of the area you would recommend to be geologically surveyed?—About ten square miles at the head of the Orikaka Valley, and the plateau at the head of Coal Creek and the Orikaka Valley, including portions of Coal Creek Valley and the Orikaka Valley.

14. But, with the exception of the area at Coalbrookdale, you think the Westport Coal Company has got all the available coal-bearing land between Westport and Granity?—Yes, with the further exception of some coal at the back of the Westport Coal Company's area at Millerton that might pay to work. That would come down the Ngakawau. The ten miles I referred to would be on the line of suggested railway between the Junction and Mokihinui. A railway-line carried through from the Inangahua Junction to the Mokihinui would tap that coal.

15. Is there any quantity of coal on the low levels at Ngakawau?—It is difficult to say. The opinion of geologists is, I believe, that the seaboard area has settled down after the whole country has been thrown up. The line of downthrow fault is clearly shown.

16. Is there much of it?—Going by the evidence we have of the known coalfield, there would be portions where it would be very good, and other places where the seam would run out. As far one can judge, the portion of the field that has settled down would be similar to that on the plateau when the subsidence occurred.

17. As engineer of the Westport Harbour Board, you know all about the appliances for shipping coal?—Yes.

18. Are the facilities afforded by the Board for shipping the coal equal to the trade?—Yes; we are well ahead of the trade now.

19. It has been suggested that you could cope with 50 per cent. more?—I would say we could ship fully 50 per cent. more than we do.

20. You could let vessels out carrying how much?—3,700 tons. The "Pennarth" carried that amount.

21. What depth of water did the "Pennarth" draw?—18 ft. At the end of this year we shall have about 1,300 ft. of a crane-wharf available. We have two steam-cranes, and shall have 1,822 ft. of wharfage available when this work is completed.

22. You are now loading chiefly with staiths, are you not?—Yes.

23. You say you are also providing crane appliances?—Yes; we have two steam-cranes, and when the wharf is completed we are to have four more.

24. Do you distinguish between the cranes and staiths for loading coal?—The crane is best for household coal, as the coal is not so much broken. The staiths load very quickly, but they break up the coal a good deal. Our two steam-cranes will load close on 10,000 tons a week, working eight hours a day. That is in excess of the trade.

25. Would not the staiths be less hurtful to the coal if set at a lower angle?—You must have sufficient height. There is a difficulty in the width of vessels. So long as the crane-jib is long enough, as in the case of our cranes, you can lift the coal-wagon right over the centre of the hatch without moving the vessel.

26. *Mr. Lomas.*] Supposing the staiths were set further back, so as to flatten the shoot, would that make any difference in favour of the coal?—The coal would sometimes stick in the shoot if you made the staiths any flatter.

27. *The Chairman.*] In round numbers, what capital would be requisite to put that property known as Cooke's into working-order?—I was in private practice at the time it was taken up, and went into the matter. I estimated the cost at £75,000 for actually connecting the works with the Government railway-line.

28. Does that include opening up the mine?—Yes, the beginning of it. That was for a trade of 800 tons a day.

29. *Mr. Proud.*] Would not hydraulic cranes be more suitable for loading the vessels than those worked by steam?—No. Steam-cranes are superseding hydraulic cranes, and are being generally adopted now.

SEDDONVILLE.

THURSDAY, 24TH JANUARY, 1901.

JOHN CLARK, Miner, examined.

1. *Mr. Cottrell.*] You were working at the Cardiff Mine?—Yes.

2. How long?—About four years, I think.

3. Did you work with Mr. Beirne?—Not at Cardiff. I worked with him at Denniston.
4. What sort of a miner was he?—I reckon he was a competent miner, as far as I could see.
5. What have you to say about the ventilation at the Cardiff Mine?—I worked both in the Bridge section and in the engine dip, and it was very bad on both occasions.
6. What was the cause?—I do not think there was any return air-course in the engine dip. We complained to Mr. Marshall about the ventilation. We knocked off work one day and came up the dip a little before 4 o'clock. Mr. Marshall appeared and asked why we had knocked off so early. Mr. Tate replied that we were almost suffocated. We were sitting out on the level. Tate told him we were almost suffocated, and he told him he should go home and look after his health. My brother complained also. We were not allowed to go out on the rope-road. On another occasion on the Bridge section we had to go out for half an hour or so every hour and a half to get fresh air, and on one day there were four or five pair of men idle. We came out along the rope-road and met Mr. Broome and Mr. Marshall, who said we should hear about that. We broke the law through going out through the rope-road, but there was no other way except by the rough road down the creek and over the top of the hills.
7. Have you seen any other miners who either had to be taken out or had to go out on account of the air?—I do not remember any one who had to go out except these men who were along with me that day.
8. *The Chairman.*] Was it exceptionally bad that day, or was that the ordinary state of things?—It was the ordinary state of things. The boxes were running slow.
9. What made you go out: was it because the boxes were running slowly, or was it through the bad air?—We thought it was no good waiting, as the boxes were running slow.
10. *Mr. Cottrell.*] Did you hear of any others having to be brought out?—Not that I remember.
11. Have you had anything to do with the Cardiff Mine lately?—No.
12. *The Chairman.*] When did you leave off working in the Cardiff Mine?—I worked in the mine until she stopped.
13. How long ago is that?—About fifteen months.
14. *Mr. Harden.*] Was this the only time you came out?—Yes; we came to the top of the dip once.
15. Supposing the boxes had not been running slow, would you have come out?—Besides the excuse of bad air, we had the excuse of no boxes running. We thought our action would be overlooked by having that excuse.
16. You had both excuses?—Yes.
17. It was not compulsory to go out in order to breathe? If you had had plenty of boxes you would have gone on?—We would have had to come out every hour and a half to get fresh air. That happened day after day for five or six weeks.
18. During this five or six weeks were they putting in the return air-tunnel?—We were driving bords on to the heading. In the meantime McGill brothers were driving to the daylight for the return air-course.
19. Did that work improve the air?—It improved my place, because I was nearest the light in the outside space.
20. How long was it when you knocked off before the mine stopped?—The air was bad a long time before the mine stopped.
21. It was practically at the commencement of the workings by the company?—It was practically at the commencement of the Bridge section. We had five or six months' work before we got good air.
22. *The Chairman.*] What was said to you when you were going out every hour and a half during those five or six weeks?—There was nothing in particular said to us.
23. Was no explanation asked for?—Not that I remember.
24. How did you manage to go out?—The workings go out on the other side of the cliff. There was no rope-road on that side of the bridge. Nothing was said to us during that five or six weeks.
25. There was only one way out and in?—Yes. They called it "Docherty's Hole."
26. *Mr. Lomas.*] Was there any proper travelling-road in any of the sections of this mine?—Yes, there was a back heading in the old mine.
27. Were there proper manholes at certain distances?—Yes.
28. How long was the Bridge section working before this return airway was put through?—There were two sections in the Bridge section.
29. I refer to where the bad air was?—I could not say how long it was. I do not remember, it is such a long time ago.
30. Do you know how long you worked in it before the return air-course was put through?—I do not think we were three months altogether.
31. Do you think that the men were working there three months before it was put through?—It was a temporary air-course before they got on the main heading. Docherty's heading was in about 5 chains, and I was driving a bord between the two headings. In the meantime the McGill brothers were working on the other side driving a place out to the cliff.

JOHN TRESSMAN examined.

1. *Mr. Cottrell.*] You are a miner of how many years' experience?—Forty-two years.
2. Were you working in the Cardiff Mine about January, 1899?—Yes.
3. At the time Mr. Beirne was there?—Yes.
4. Do you remember Mr. Tennent coming through at the time Mr. Beirne was there?—Mr.

Tennent came several times, but on the occasion I think you refer to I was working in the Bridge Mine.

5. What was the state of the ventilation in the mine when you were working there?—I think she was the worst-ventilated mine I ever worked in.

6. About January, 1899, what was the state of the ventilation in the mine?—I think I was working in the east dip during part of that year. The ventilation was very bad.

7. How long did you work there?—I worked a quarter in the east dip.

8. And during all that time was the ventilation bad?—Yes. I was the first to take the pillars out when they started in that district.

9. Did you make any complaint about the ventilation?—Yes. On the second day I went to work two men were absent from work on account of the bad air. Mr. Marshall came to the place, and, it being so near to my place, I heard the conversation that took place between him and the men at work. He told them that he would not stand men lying off work. They said that the air was too bad to continue working in, and they mentioned the complaints of their mates, who said that they would not be at work on account of what they had suffered the day before. Mr. Marshall then came to my place. I was president of the union at the time. I told him that if we were not allowed to work under those circumstances there would be no alternative but to knock off, and that they would have to get some mechanical means of ventilation. Mr. Marshall said he had nothing to do with that. He said we knew where to go, and might take the matter to the union if we were dissatisfied. When working at our faces it was very rare that we could work more than an hour at a time without having to move out to where the air passed by. On one occasion I knew a man named Curtis laid by the side of the road half a day and unable to get out of the mine until half-past 4 on account of the bad air. This district, while they were taking out the solid ground, had mechanical means of ventilation—ventilation by a fan. When they commenced to extract the pillars in the back heading the return air-course had collapsed. In a conversation with the deputy concerning the ventilation on one occasion, I told him that it would be advisable to put in a little air; that it would not cost much—about £3. He said he had mentioned it to Mr. Broome, but could not get it done.

10. *The Chairman.*] Who was the deputy?—Mr. Marshall. After working in the east dip I worked in the Bridge section. The ventilation which has been spoken of by Mr. Tate and Mr. McGill is running parallel with the cliffs from daylight. It was driven in 3 chains. Then they turned a little to right angles and ventilated it to a chain and a half, which brought it out to daylight again. There was no return of any kind before that was put through.

11. How long do you suppose they were working there before they got to daylight?—I could not exactly say; it was put through before I was working in the Bridge district. I had to pass through this place to my work The main drive continued a chain and a half, and then the heading took a fresh name, and became the main bridge heading, turning square on to the left. That heading was driven up 4 chains and had no return airway. It was bratticed, and the outlet from the bridge heading faced to that last outlet to the creek. That was the return, and the brattice was put up in such a poor way, and being only natural means of ventilation, that it was of no service.

12. *Mr. Cottrell.*] Did you not make a complaint to Wellington through your union?—Yes.

13. Were you discharged?—Yes.

14. About what date?—Two days before Mr. Beirne—on the Saturday.

15. You had made a complaint?—We lodged our complaint with the Mines Department.

16. Did you not lodge your complaint then?—Yes, in January.

17. Had the management said anything to you about discharging you up to that time?—No. A note on my dismissal from Mr. Broome was to this effect: that I interfered very much with him in carrying out the work of the mine to the best advantage.

18. Did Mr. Tennent ask you if it was your signature on the document?—Mr. Tennent has never spoken to me in my life.

19. In consequence of that letter of dismissal you lost your employment?—Yes.

20. Have you been able to get any employment since?—Yes.

21. You are one of the partners in the Mokihinui Mine?—Yes. But I could not get any employment before. I only asked the Denniston people for employment, but they refused to find it for me. Since then I have never been in a position to leave the district.

22. *The Chairman.*] Did the Denniston people tell you why they would not give you employment?—No.

23. *Mr. Cottrell.*] Is there any other statement you wish to make? Did you bring any of your complaints before Mr. Tennent?—After what Mr. Marshall had said to me and Mr. Pratt *re* getting letters from headquarters, I could not send any complaints to Mr. Tennent. I dare not trust him.

24. Can you give any reason why you could not trust him?—Because it might have been true what Mr. Marshall had said. I thought it would be better to take the benefit of the doubt.

25. Do you think that Mr. Tennent knew that the mine was badly ventilated?—I fail to see how he could have known otherwise. I have known him to visit the Bridge district on two occasions in one week during the time the ventilation was at its worst. After I was discharged the fan was erected in the Bridge district, I was told, and the air was very much improved at the latter end up to the time the mine shut down.

26. Up to March, 1899, there was no fan used, and the ventilation was bad?—There were only natural means of ventilation in Bridge Mine up to my getting discharged. They had a fan lying idle, but for some cause or other they would not erect it. It could have been erected at very small cost.

27. *Mr. Harden.*] You say you have nothing to do with Mr. Beirne's complaint?—Yes.

28. Where does this complaint come in about Mr. Tennent, the Government Inspector?—When Mr. Beirne's affair took place we were not going to take any notice of it as a body of workmen. Some time after this there was a complaint made about the danger of the work; after that bad ventilation took place, and when we took action that was put in amongst the rest.

29. How did you make out a complaint against Mr. Tennent?—We sent it on to Wellington, thinking that if it was a complaint against Mr. Tennent he had every opportunity of proving that it was wrong.

30. *The Chairman.*] Supposing that what Mr. Marshall said was true, what complaint had you against Mr. Tennent?—I call it a complaint in this way: that, if Mr. Marshall's statement was true, it would be a complaint against Mr. Tennent for sending letters to the company's officials concerning the grievances of the men.

31. You considered that if the company's officials complained against you for not carrying out your duties, that would be a complaint against Mr. Tennent?—I thought he had been divulging matters.

32. You found that the purport of your complaint was given to the mine-owners?—I did not know of any one who wrote letters to Mr. Tennent. They could have been written individually, and not as a body.

33. Do you complain that, when you wrote to the Minister, you found that the contents of your communications were communicated to your employers?—Yes; that is just the same thing. In one case it is divulging, and in the other it is intimidating.

34. What meaning did you give to the letter?—I took it that Mr. Marshall got letters from Mr. Tennent, and that Mr. Tennent divulged these matters to the company.

35. *Mr. Cottrell.*] Did you understand you were complaining to Wellington about the state of the ventilation?—Yes. The union had not taken any measures against Mr. Tennent up to January. I took it as a jest when Mr. Pratt asked Mr. Marshall why he did not visit yesterday, but I thought Mr. Marshall was sincere when he replied that Mr. Pratt would hear of it shortly. He meant that when he missed visiting a man's place some one reported the matter, and he heard of it afterwards.

36. *Mr. Harden.*] Did you ever make a complaint against Mr. Marshall?—No.

37. Do you know of any others who have?—No. I know some who would have liked to, but I gave them my advice not to.

38. You say that you only put that other matter in to add to the other complaints, but had no intention of making a complaint about it?—It was lying dormant.

39. With regard to the men coming out of the mine for air, can you tell us what wages the men were making at that time?—About 8s. or 9s. a day, I think.

40. Have you not a union record-book showing what they were making?—No; but it could be got from the check weigh-book.

41. *Mr. Cottrell.*] When you went to the secretary of the union you got him to send the complaint on to Wellington?—Just so.

42. What was your complaint against Mr. Tennent: do you wish to say it was because Mr. Marshall said he would hear of that again shortly?—It was an admission by Mr. Marshall that when we informed the Inspector of anything Mr. Marshall heard of it through Mr. Tennent again. We thought this because of Mr. Marshall's remark.

43. Did you think Mr. Marshall was giving you a tip not to send letters to Mr. Tennent?—I thought that Mr. Tennent had got letters and had passed them on to Mr. Marshall.

44. Mr. Marshall's remark led you to believe that?—Yes.

45. *Mr. Harden.*] What evidence had you of that: you say that no complaints had been made?—No complaints had been made as far as I knew. When Mr. Tennent was chosen as Government Inspector there was one part of his duty he attended to very well—that was, getting the men to sprag their coal well. Through the long continuation of bad ventilation, and of what Mr. Marshall had mentioned *re* letters from headquarters, and the same being well known to Mr. Tennent, we came to the conclusion that he was not to be trusted.

46. *The Chairman.*] The union has always been in existence in Mokihinui since the Cardiff Mine started?—Yes.

47. *Mr. Harden.*] With regard to the notice that you and Pratt signed, are you aware that Pratt afterwards denied the truth of it?—I have been told that he denied part of it.

48. This is the letter: "I hereby declare that the statement complained of therein, signed by me, is untrue"?—I did not think it was so plain as that. When these charges were returned by the Mines Department to Mr. Tennent, and he was going round the mine with the charges, in company with Mr. Broome and Mr. Bayfeild, the intimidation was too much for Mr. Beirne to stand. Mr. Foster was with us when Mr. Pratt signed the document. Mr. Foster is at Alexandra.

49. *The Chairman.*] Was Pratt a member of the union?—Yes; and he was well able to read and write.

50. *Mr. Cottrell.*] The other complaint you made was with reference to ventilation?—Yes.

FRANCIS BEIRNE, Coal-miner, examined.

1. *Mr. Cottrell.*] You were working in the Cardiff Mine about December, 1898?—Yes.
2. What part of the mine were you working in?—The east dip.
3. What class of work were you doing?—I was stripping a pillar in another man's place.
4. When was that?—Some time in December, the day the Inspector came.
5. Had you worked there before?—Yes; but not on that pillar.
6. That was the first time you went on that particular pillar?—Yes.
7. What was the state of the roof?—It did not seem bad; but previous to this I was working higher up where there was a fault.

8. What reason had you to leave the pillar?—The roof began to work.

9. What did you do?—We came to the conclusion to shift our tools and go to a place of safety until she settled. I considered at the time there was no immediate danger. We filled about four tubs more when she began to work heavily. I told the trucker he had better go for the roadman. The roadman came and told us to knock off work, as the place was coming in. "If that is the case," I said, "the sooner we are out of this the better."

10. Who came next on the scene?—Mr. Tennent, Mr. Broome, and Mr. Marshall.

11. What happened then?—I was the only miner that stopped below. I said to Mann, "You stop here, and if we find any immediate danger we will whip the rails up." We took some of the brattice down. Mr. Marshall asked who took the brattice-boards down, and I said I had. Mr. Tennent asked for my pick, and I pointed to him to try the pillar I was working at. I knew that if he did he would soon order us out. Mr. Tennent went to the next flat-sheet, where the country was pretty solid, and he said to Mr. Broome, "Take out the timber and the miners would not see their danger." He threw the pick down on the ground, and I took it up to the men where they were sitting in a place of safety until Mr. Tennent, Mr. Broome, and Mr. Marshall came up.

12. When they came back what happened?—Mr. Tennent said, "Where is all this danger you men are complaining about?" I said, "Have you examined the mine, Mr. Tennent?" and he said "Yes." I said, "Could you find no danger down there?" and he said "No."

13. What did you say then?—I then asked him to come with me and I would show him where there was danger.

14. What did he say?—He gave me to understand that he was boss of the affair, and we had no right to criticize his actions; he reckoned the place was safe, and we had to abide by it.

15. How long after this was it when the roof fell in?—Before I went back to work Mr. Broome said he had a good mind to put every man out of the mine and get competent men to work it. I said then that I had worked in coal and alluvial mines for thirty years, and I thought a man of that experience ought to have an idea of danger.

16. What did Mr. Tennent say?—He said that if we men would go back to work he would visit the place within an hour. He said he was going to visit the Bridge section, and if everything was not safe he would shift us out of it. I then made a remark that if I was allowed to work in the pillar I was taken from for another hour that that portion of the mine would have fallen in.. We then went back to work. Mr. Marshall informed me that I must not touch that pillar any more—that is, the pillar I was working at when I left. I said, "Why is it that Mr. Tennent stops the place if he reckons there is no danger?" Mr. Marshall said that Mr. Tennent had given him instructions not to allow me on that pillar again.

17. You say that he told the manager one thing and you another?—Yes. I said, "Why did Mr. Tennent say there was no danger if I was allowed to work this pillar?" Mr. Marshall said he would remove me to another level.

18. You are a member of the union, I think?—Yes.

19. Did you lay the facts of what had happened before the men?—Yes, when I came home from work, and as soon as I could get a meeting.

20. Were there any other complaints laid before that occasion?—Yes.

21. As to what?—Bad air.

22. What did the union decide to do?—To lay the complaint against Mr. Tennent before the Minister of Mines, as we thought he was the proper man to go to. We thought it was no good going to Mr. Broome, as we should simply get the "sack."

23. Your complaint was made to the Minister of Mines, in consequence of this, about January following?—Yes.

24. You continued to work in the mine after the complaint was lodged by the union?—Yes.

25. Did you work after that time in the mine?—Not after I was removed.

26. You do not know whether the coal fell in or not?—Only from what I have been told. It fell in the same day.

27. *The Chairman*] Mr. Mann told us it was not until after a month?—He was mistaken. I only worked in that particular pillar one day. He worked in that section. The trucker told me it was the day I left.

28. You did not work in that section at all after the day that Mr. Tennent was in?—Yes, I did.

29. Where did you work after that?—Higher up on the level, making a roadway through a pillar.

30. *Mr. Cottrell.*] Do you remember Mr. Tennent visiting the mine again after that?—Yes.

31. About what time?—As far as my memory serves me, it was about March.

32. Who was he in company with?—Mr. Broome and Mr. Bayfeild, agent for the Cardiff Company.

33. Had any complaints been made against you as to your personal methods of working?—Not up to that time.

34. Do you remember the date in March when they came?—It was early in the month.

35. What happened then?—When they came into the place where I was working Mr. Broome introduced Mr. Tennent. Mr. Tennent said, "I have a document from the Mines Department: is that your signature? Do you know anything about it?"

36. What answer did you make?—I said, "Indeed; will you be good enough to read it to me." I then told Mr. Tennent I could not read without glasses, and Mr. Broome asked Mr. Tennent to give me his glasses. He did so, and I could not see very well through them, and told him so. He asked me whether it was my signature, and I told him that I would not swear it was. He asked me whether I knew anything about it. I said, "Yes; I signed a complaint to the Minister of Mines with regard to you," and mentioned the time in December of this affair down

the dip. I said the man who had written that wrote very much like me. Mr. Broome stepped over to me with his hand raised and said, "I will compel you to acknowledge your signature." I said I would acknowledge it when I saw it. I said to Mr. Broome, as mine-manager, "It is very cowardly for you to come and attack me like this in my working-face." I turned round to Mr. Tennent and said, "You will hear more about this, as I shall certainly not let this pass."

37. Did Mr. Bayfeild and Mr. Broome appear to know the contents of the document?—They seemed to. Mr. Bayfeild said to me, "Why not acknowledge your signature?" I said, "I will when I see it." All three seemed to know the contents. They left my working-place then.

38. How many days afterwards was it when you got your discharge from the mine?—About three days afterwards, I think.

39. Did you get this notice of discharge: "Mokihinui, 13th March, 1899.—Mr. F. Beirne.—Sir, the Inspector of Mines considers you are an unsafe man to work in a coal-mine, and I am bound to say I am of the same opinion myself. I must therefore, for your own sake and the protection of my company and myself, stop you from working in the mine.—GEORGE H. BROOME, Mine-manager." Is that the only notice you received?—That is all.

40. What date would you say Mr. Tennent was in the mine?—About three days before that.

41. *The Chairman.*] You stopped working after receiving that notice?—Yes.

42. *Mr. Cottrell.*] You stopped immediately?—Yes, when the underviewer gave me that.

43. That is the only reason you know why you were knocked off?—That is all.

44. Did Mr. Broome send for you shortly after this?—Yes, a few days. It was three days after the Arbitration Court sat in Westport. We had a case there, and he came to me after the arbitration case was settled. "We want to bury the hatchet," he said. "If you will withdraw the charge against Mr. Tennent we will reinstate you in the mine again."

45. What reply did you make?—I said, "You sack me one day for incompetency, and want to put me on the next day," and that I would never enter his mine again until Mr. Tennent cleared my character.

46. What reply did Mr. Broome make to that?—He said he had no doubt Mr. Tennent would withdraw his complaint, providing I would withdraw mine, and he would speak to Mr. Tennent through the wire and let me know when he got the reply.

47. Did you receive anything from him after that?—No; I left the place the day following that on which I saw him.

48. Did you put your position before your union?—Yes. [Letter from the Miners' Union to the Minister of Mines, dated 6th April, 1899, put in, as follows:]

DEAR SIR,— Seddonville, 6th April, 1899.

I am instructed by my committee to forward to you the following complaints against Mr. R. Tennent, begging an inquiry into the same. You will remember that a short time ago I forwarded to you a list of charges against Mr. Tennent, Inspector of Mines, as instructed by my committee. The same, I presume, was sent back to Mr. Tennent, for on the 11th March Mr. Tennent came into my working-place, accompanied by Mr. Broome, mine-manager, and Mr. James Marshall, underviewer, and Mr. Bayfeild, company's agent. Mr. Broome to Mr. Tennent: "This is Mr. Foster." Mr. Tennent then took out a paper (the same I forwarded on to you some time ago), and said, "Is that your signature?" I said, "It is." Mr. Tennent: "What did you write it for?" I answered, "Because I was instructed to." Mr. Tennent: "Who instructed you to?" "My committee." Mr. Tennent: "Why did you not say so in your letter?" He then went on asking me if I knew anything about the Act. I said, "A little"; he then said, "Do you know that you can get into trouble signing a paper like this?" I said, "No, I was not aware of it." He then turned round to Mr. Broome, saying, "I forgot to bring that Act, where it states that a secretary cannot sign any grievance that he is not implicated in." He then went on asking me if I was working in the dip the time the complaint was lodged, and I said "No." "Well, then," he said, "you had no right to send away that paper unless you were implicated in it, and I must have a written declaration to that effect before I leave Seddonville to-night." Mr. Broome said one of the men who had signed the paper denied all knowledge of it. I asked him who that man was, and he said "Pratt." I then asked Mr. Broome if that was not Pratt's signature; he said "Yes." I then asked if he thought a man would sign a paper and not know the nature of it; he said he had done so, meaning Pratt. I then asked them if they would come with me to Pratt; they answered "Yes." So we all left the place I was working in and went into Pratt's place. I then asked Pratt if he read the paper before he signed it, or heard it read, and he answered "No." I then asked him if he would sign a paper without knowing what was in it; he answered "Yes." I then said that would do, and was turning away when I again said, "There were witnesses when you signed that paper," and he said, "I heard it read, and signed it, knowing it to be wrong" (he was told after he got his pay that he was wanted in the office; he went, and withdrew all that he had done in the matter). After leaving Pratt's place we had a general discussion on the matter, and Mr. Broome said that a man who would write a letter like that without being personally concerned in the matter was nothing but a jelly-fish. I asked him to withdraw the remark, as he had no right to use it. He said he would withdraw it when I wrote the declaration for Mr. Tennent.—H. H. FOSTER.

The following is another charge brought before the committee by Mr. F. Beirne against Mr. Tennent. Mr. Tennent, accompanied by Mr. Broome and Mr. Bayfeild, company's agent, came into my place on the 11th March, 1899. Mr. Broome to Mr. Tennent: "This is Mr. Beirne." Mr. Tennent: "I have received a communication from the Mines Department with your name attached to it: do you know anything about it?" at the same time presenting a document to me. I could not read without glasses, when Mr. Broome said to Mr. Tennent, "Lend him yours." I then looked at the signature referred to, and said to Mr. Tennent, "That signature looks like the handwriting in the document," when he said, "Is it not yours?" I said, "Mr. Tennent, I have signed a complaint against you, but if you look at that letter you can see who wrote it; it is a copy of the complaint I have signed; and I object to you, as Inspector of Mines, and Mr. Broome, as mine-manager, to come and take me at my work like this," when Mr. Broome steps close up to me in a threatening attitude, and wanted to force me to say that the signature to that document was mine. I then said to Mr. Broome, "I decline to give any more information in the matter at present," as I thought this was no place to settle this matter, "and I think it looks cowardly and mean to tackle me like this, to irritate me at my work." Mr. Broome replied, "What next from the colliers?" In the discussion Mr. Tennent referred to the last dip—the place complained of. He said, "The place is standing yet." I said, "Certainly, because the place the danger existed in he stopped on that occasion," when he made no reply to me. All three then left my place. This was on Saturday afternoon; on the following Monday morning, while at my work, I got a letter from Mr. Broome stating that the Inspector considered I was not a safe man to work in the mine, and he thought the same, so therefore he must stop me working; so I had to cease working and come home.—FRANCIS BEIRNE, per H. H. FOSTER, authorised by him, he being away from the place.

Mr. Tate is Mr. Beirne's mate, and was present when Mr. Broome, Mr. Tennent, and Mr. Bayfeild, the company's agent, came into our place. I overheard part of the conversation. Mr. Tennent asked Mr. Beirne if he

would swear that that was his signature. Mr. Beirne said, "I signed a document lodging a complaint against you to the Minister of Mines." Mr. Broome then said to Mr. Beirne, "Will you swear that it is not your signature?" and he said, "I will not, and I think it is both cowardly and unmanly to come in here and cross-question me at my work."—ANTHONY TATE.

Mr. Tennent was in company with the management of Cardiff Coal Company the whole of the 11th March, 1899, and on the same day I got instantly dismissed.—JOHN TRESSMAN, President.

Trusting that you will give this your earliest and earnest consideration,

I have, &c.,

The Hon. the Minister of Mines, Wellington. H. H. FOSTER, Secretary.

49. The press copy of that letter is in the book of the union, is it not?—Yes.

50. What do you say about the state of the air in the mine?—It was bad, as a rule.

51. Did you make any complaint about it?—No; I dare not.

52. Do you want to make any explanation about it?—We knew that if we made any complaint to Mr. Tennent or Mr. Broome about the air we might take up our tools and leave. I was secretary of the union and called the attention of Mr. Broome to it, and he said if he got more brattice it would be an expense to the company, and he did not wish to go to any more expense than he could help, and that we were not to be hard in the matter.

53. Do you know of any miners who had to be taken out of the mine on account of bad air?—Yes; men had to leave their faces through it—Anthony Hayes, Thomas McGill, and one or two others. I asked them why they had to come out, and they said they had to, or would have been suffocated.

54. Do you know of any others?—There were others too. It was an every-day occurrence, but we took no notice of it. It was a frequent occurrence for them to complain of the bad state of the air.

55. Was it a frequent thing, or did it happen only sometimes?—It would not happen every day, but the miners complained to one another frequently. As a rule, it was bad.

56. What effect has the notice of dismissal had upon you?—It has left me idle ever since.

57. You have not been able to get employment in a coal-mine?—No.

58. *The Chairman.*] Have you tried?—I tried at Granity, and I was told by Mr. Murray, when I applied, that I could not look for work—that they dare not give me work in a coal-mine after that charge was laid against me. Mr. Broome told me the same thing. He said, "After that you never need look for work in a mine again."

59. *Mr. Cottrell.*] Do you know anybody else who lost his employment through making complaints?—There was the secretary. I understood that Mr. Foster left his place through the same thing.

60. Do you know anything about Mr. Tressman's position?—I have known Mr. Tressman to be laid off on account of bad air.

61. Was he put off for complaining of bad air?—Yes.

62. Was anybody else that you know?—There might be.

63. Do you know what happened in Pratt's case?—He signed that complaint with Tressman and myself.

64. What happened to him in the mine afterwards?—I do not know whether he was put off or not.

65. *Mr. Harden.*] On the day you were working at the pillar, when Mr. Tennent and the others came, how many were there working at the time you left?—There were none working, as I was the last man to leave it.

66. How many of you were there at the time you came out because it was not safe?—There were four with me, and about twelve altogether. I think there were eight who came out with me.

67. And you continued to work in or about the mine until March?—Yes.

68. But not in that dip?—No; I left that dip that day.

69. Where were you working before?—I worked nearly all over the mine.

70. Where did you work before you worked there?—At Denniston.

71. How long were you there?—Between five and six years in Denniston, and two years in Cardiff.

72. Did you come from Denniston to Cardiff?—Yes.

73. Why did you leave Denniston?—For firing a shot at dinner-time, or helping to do it.

74. Was that contrary to the rules?—We were told in the morning by the roadsman that there were fresh orders that no man was to fire his own shots. There was a bit of misunderstanding about the shot. I got the shot ready before dinner, and the shot blew back. There was about 5 ft. of holing—it was well holed. My mate and I had a consultation about it. There were a lot of men working about us, and we said the smoke would be away by the time the men came back. The roadman asked if we had fired the shot, and I said "Yes," and he said "I shall have to report you." The deputy fired the shot before dinner and it blew back. He said he would come back again, but went to dinner, and we came to the conclusion that it would be for our own good and for the good of the men in the section if we fired it, and that is what I got the "sack" for. When I came to the Cardiff Mine I told Mr. Broome about it.

75. You said that the reason why you got the "sack" was because you were a promoter of the union?—Yes.

76. What was the real reason why you got the "sack" from here?—Because I lodged a complaint against Mr. Tennent.

77. It was not because you were secretary of the union?—No. I was not secretary then, but had been.

78. Were you one of the committee?—The secretary sits on all committees. Mr. Broome distinctly told me that if I would withdraw the complaint against Mr. Tennent he would reinstate me.

79. When was it that he told you he was of the same opinion as Mr. Murray, that you would not be a proper man to go into the mine again?—I am not positive that it was Mr. Murray I asked, but it was one of the bosses there.

80. When did Mr. Broome say that?—In that notice.

81. *Mr. Cottrell.*] At Denniston, was that the first time that the deputies were authorised to fire shots?—Previously to that we always fired our own shots.

82. *Mr. Lomas.*] I understood you said you were authorised to take 5 yards off the pillars you spoke of?—Yes.

83. You said something about taking another slice off the same pillar?—Yes.

84. Were you taking it off a bord?—Yes.

85. Was the other man taking it off on another pillar?—Yes.

86. What thickness was it?—We were breasting it off on the same road. I could not say the thickness it was.

87. What width was the bord?—18 ft., I think.

88. Was it standing on props?—Yes.

89. What thickness did it leave the pillar—the stump of the pillar you were leaving?—Close on half a chain.

90. Would you take half the pillar?—Yes, about half.

91. And leave about a half?—Yes.

92. Were there any thin places in the pillar?—When I was working it with a pick it was all the time crushing down.

93. Do you think it endangered the pillar in front of you?—Yes.

94. Did the manager ever complain of your conduct before that?—No.

95. What meaning did you take out of the notice—as to your being an unsafe man to work in the mine?—I did not know what meaning to take out of it.

96. What meaning have you taken out of his notice?—I came to the conclusion that they had concocted it to put me out of the mine because I had complained about Mr. Tennent.

97. Not that you were an unsafe workman?—No, because I could prove that I was about as safe as any one in the mine.

98. *Mr. Proud.*] Has ever any accident occurred in your hands while you have been a miner?—Yes; once in the Cardiff Mine.

99. What was the nature of the accident?—A piece of coal came on me and crushed me a bit.

100. You think you could put up timber to protect yourself?—Yes.

101. You are quite competent to do that?—Yes. I was often picked out to put up timber in alluvial ground, and also at Denniston. Mr. Tennent drew my attention to the fall of the coal, and said he reckoned it was through insufficient spragging. Before I could get out, a little piece came out and got me on the back. That was the only accident that ever happened to me in the mine.

ANTHONY TATE, Coal-miner, examined.

1. *Mr. Cottrell.*] You have been a practical miner for how many years?—Nearly forty.

2. Were you working in the Cardiff Mine?—Yes.

3. About March, 1899?—Yes.

4. Do you remember Mr. Tennent coming into the mine about that time?—Yes.

5. Where were you?—Working in the place along with Mr. Beirne. I was in the front side, and he was working behind, 18 ft. between us.

6. Had you to go for any reason?—I came out not to hear too much of the discussion going on.

7. Who came into the mine?—Mr. Bayfeild, Mr. Broome, and Mr. Tennent.

8. What conversation did you hear take place?—I heard Mr. Tennent ask Beirne if that was his signature—showing him a document of some description—and Beirne said he would not swear that it was.

9. Did Mr. Tennent say what the document was?—Not that I heard. Mr. Broome asked Mr. Beirne whether he would swear it was not his signature, and Beirne said he would not. Mr. Broome said that if he did not admit to the signature there he would have to admit to it somewhere else.

10. Did you gather from that that Mr. Broome knew the contents of the document?—I was under that impression.

11. Was anything else said?—Mr. Beirne said it was both unmanly and unfair to him to go into his place and cross-question him when he was working.

12. Did you leave then?—That is all I can remember.

13. Do you consider Mr. Beirne a practical miner?—I do.

14. Have you worked with him?—Yes; he was one of the most careful men I ever did work with.

15. What was the state of the ventilation in the mine?—At that place we were in then it was not bad, but in a general way it was very bad. The bad air I wish to say anything about was over the Bridge section. I have seen Andrew Hayes crawl out on his hands and knees, and there were six of us who came out on several days to get fresh air.

16. Was the air so bad that you could not stay there?—We could not stay over an hour, as we became exhausted. There was just one road in and one out. You had to come out the same road that you went in.

17. Did you make any complaint to the Inspector?—No.

18. Can you give any reason for not complaining?—I have complained to the deputy, but if

we complained further than that we should have got the "sack." We might not get the "sack" right away, but would be hampered until we would have to go. There is no doubt about that.

19. Do you think that Mr. Tennent knew the state of the air in the mine?—He was in several times in my presence. He was bound to know. I do not see how he could do other than know.

20. Did you know when Mr. Tennent was going to pay visits to the mine?—No; it was only supposition on my part. I had reasons for thinking he was coming. The roadman would come in and ask you if you had spraggs. When they came in to inquire about spraggs and props I gathered then that the Inspector was coming.

21. Did you invariably find that the Inspector came after those preparations?—Yes.

22. *The Chairman.*] Was the air improved before the Inspector came?—No; it could not be improved until a hole was made for the return air. There was no return airway there.

23. *Mr. Cottrell.*] Was all the refuse brought out of the mine?—The stone left in the mine was filled with dirt and coal.

24. Where did the refuse go?—I never stacked it. The boss gave me 1s. a skip for filling the refuse into the wagon. Our agreement was to stack this so that it could be conveniently measured.

25. *The Chairman.*] You were paid whether it was left in the mine or taken out?—We had either to leave it or take it out, according to instructions.

26. *Mr. Cottrell.*] Was the stone left like that?—There was some left.

27. Is it the correct thing for a company to take that out? Should it be removed from the mine?—I do not think any of it would fire unless there was a quantity of coal in it. That is my opinion about it. I may be wrong.

28. *Mr. Harden.*] Was a return airway made?—There was no return at all.

29. Has there ever been a return airway made?—Yes.

30. When was it made?—During the time I was there, but I cannot give you the date. I worked in the mine five or six weeks before it was made.

31. When did you go to work in the mine?—I have no dates.

32. Were they making this return airway when you made the complaints to the deputy?—I think so.

33. *Mr. Lomas.*] How far was this particular drive in this Bridge section before there was a hole put through for a return?—I would think, 3 or 4 chains.

34. Were there many bords working down that distance?—Ten men and five bords.

35. Besides truckers?—There was only one trucker.

36. Any roadman?—One came in occasionally.

37. Any horses?—No.

38. How far would the bords be in before a hole was put in for air?—About 3 chains.

39. How far were the bords from the main heading?—About half a chain.

40. There were practically five bords?—Yes; one was going back to daylight to bring air.

41. Before they got air they had to drive 6 chains?—At the time they were driving the heading we were driving behind them.

42. What distance would you reckon it would be before the hole was through in the back heading?—There would be no more than 3 chains from daylight before the hole was put through.

43. How far had you to drive back to get a hole through?—About a chain and a half.

44. *Mr. Proud.*] When you had no return airway the ventilation would be stagnant?—Yes.

WALTER MANN, Miner, examined.

1. *Mr. Cottrell.*] Where are you at present employed?—At Waimangaroa.

2. Were you working in the Cardiff Mine at all?—Yes, close on two years.

3. Were you working there about December, 1898?—Yes.

4. What were you doing there?—Trucking.

5. What part of the mine were you working in?—I have worked mostly over all of it. At that time I was working down the east dip.

6. Were you working with Frank Beirne?—I was trucking off him.

7. What work was Beirne doing?—Splitting a pillar—going straight through the centre of it.

8. What was the state of the pillar?—It was easy work. It was crushing, according to my idea.

9. Was it moving?—The roof above was creeping.

10. Did Beirne and the other man leave the place?—Yes; they complained to me, and said it was creeping. They stepped back and asked me to go for the deputy.

11. What means of getting out had you from that place?—There was only one way out.

12. Did you bring the deputy?—Yes; Thomas Sharp.

13. What happened then?—He said he did not think it was exactly right, and he would go away for Mr. Marshall, the under-boss. Mr. Marshall came, and said he thought the place was right enough for them to work in. After the men started to work again there, it again started to creep.

14. Did they leave for the time being?—Yes.

15. Do you remember going there?—Not on that day, but I remember when he did come. The men did not go out of the mine. They shifted further up to a different part of the mine.

16. Do you remember the Inspector going there?—He came before that. I forget if he was there on that day. The men were working there after the Inspector had been through.

17. Where were you when the Inspector came?—He came with Mr. Broome. We were sitting on top of the dip that day because it was creeping. It might have been a month before what I have been talking about. He asked what we were doing there. Some of the miners said

the place was creeping, and they had just come out to let her settle. Then he and Mr. Broome went down.

18. Do you remember any conversation that took place between him and Mr. Beirne?—No.

19. After the Inspector went down did he say anything when he came back?—The only remark I remember was that he thought it was safe.

20. Did the men go back and work there?—Yes.

21. *The Chairman.*] For how long?—Some were going away every day; others stayed about six weeks after the visit of Mr. Tennent.

22. Do you remember the pillar Mr. Beirne was working at?—Yes.

23. How long after Mr. Tennent was there was it before that pillar fell in?—About a month after.

24. Was it worked after Mr. Tennent was there?—Yes.

25. Who worked at that pillar?—No one worked at it after Mr. Beirne left it. He was taken away from it just before dinner, and it fell in about 2 o'clock. The section fell in. We had noticed it creeping and had sent for Mr. Sharp, the deputy.

26. What was the state of the air in the mine?—Down that part of the mine it was pretty bad.

27. Did you suffer any ill effects from it?—I suffered to certain extent through the bad air while working down there.

28. Was the Inspector repeatedly in the mine?—Yes, I had seen him pretty often.

29. Did you know when the Inspector was coming?—Yes.

30. How did you know?—We were generally ordered to get timber into the place, and things like that.

31. Are you a member of the union?—Yes.

32. Did you join in any complaints that were made?—No.

33. You had nothing to do with that?—No.

34. *Mr. Harden.*] Were those pillars worked systematically and properly?—Some were and others not.

35. How did Beirne work his?—As far as I could judge, he worked his systematically and according to instructions.

36. Did he get out all the coal that was practicable?—No, not at that part.

37. How was that?—It fell in.

38. If he worked it systematically and properly, would he not have got all the coal out that was practicable?—He did not get it all out.

39. That was, up to the time you were there?—Yes.

40. It was through no fault in the mode of working that it fell in?—Not altogether.

41. How do you qualify that?—My idea is that some of the pillars should have been left standing.

42. *Mr. Cottrell.*] Do you consider there was any robbing of the pillars there?—Not to my knowledge.

43. *Mr. Lomas.*] When Mr. Sharp fetched Mr. Marshall, you said that Mr. Marshall said he considered the place safe, and after that you said it came away: how soon after did it come away?—About two or three hours after.

44. After he said he considered it safe?—Yes.

45. Do you know why Beirne was shifted from this place?—No.

46. In your opinion, then, the place came away because this pillar that he split was left too narrow?—Yes, that is my opinion.

47. Was he splitting this pillar when the Inspector came?—He was working about there; but I could not tell exactly where he was working when the Inspector came.

48. Did you consider it safe at the time the Inspector said it was?—No, I did not; but I was not supposed to know, because I was trucking.

49. Did you see it creeping?—Yes.

50. Did it break the timber?—Yes.

51. Did it break among the props?—Yes, it started to strain them.

52. Did the men put in new props?—No.

53. They went on working with the place creeping all round them?—Yes.

54. Do you consider that safe?—No.

55. Had he said anything to the men about renewing the broken props?—I do not know—I never heard him.

56. *Mr. Proud.*] Did you ever notice any smudge left in the mine?—No.

THOMAS MCGILL, Miner, examined.

1. *Mr. Cottrell.*] How many years have you been mining?—Thirty-two years in different mines.

2. How long have you been working in the Cardiff Mine?—About four years.

3. Were you working there about December, 1898?—Yes.

4. What face were you working in?—In the east dip; but I could not exactly say the time.

5. How many means of exit were there from that dip?—Only one that I could see. I was working in the east dip, off the big dip. I worked to the left side of the east dip going down.

6. How many miners were working there then?—Twelve.

7. What was the state of the face?—We were taking the pillars out. Occasionally while taking the pillars out she would creep a bit. Sometimes we came out and sometimes not.

8. In December, 1898, do you remember anything happening to the face or the pillars?—I cannot say for the dates, but at one time we all came out, as she was going heavily. The roof was going. We were taking out the coal as she was going heavily.

9. Is there any other word you use for that?—That is the term we use.

10. What did you do?—We came out to a place of safety for a time.

11. Did any one come there?—Yes; Mr. Tennent and the mine-manager and the under-manager (Mr. Marshall).

12. Was Mr. Tennent told by the miners what had happened?—No. Mr. Tennent asked the question what we were there for when he was going past us. I answered that she was going and we came out until she should settle. They passed on through the dip then, but how far I could not say.

13. Do you remember Mr. Tennent coming back?—Yes.

14. What did he say?—He considered that she was safe, and we thought she was not safe.

15. Did he say he considered she was safe?—Yes.

16. Did he tell you to go back to work?—No, I do not remember that; but the mine-manager said he was going to "sack" us all and put competent miners in our place.

17. What other miners were with you?—Eleven men besides myself. I think I could name them all.

18. Was Mr. Beirne there?—Yes, Frank Beirne was there.

19. Was there any conversation between Mr. Beirne and the Inspector?—Yes; but I could not remember what he said. He said something about timber—that Mr. Marshall had impeached him and laid a charge against him—and I remember Beirne saying that he had been thirty years a miner, and was capable of judging where danger occurred.

20. Did you go back?—Yes; the Inspector, Mr. Tennent, went with us.

21. What was the state of the faces when you got back?—She settled again until she made another start.

22. Speaking as a competent miner, do you think it was safe to go back and work there?—It was not safe.

23. Do you know what happened in that dip afterwards?—I know of nothing serious that happened.

24. Do you remember anything else happening between Mr. Beirne and the Inspector?—No.

25. What was the state of the air in the mine generally?—Bad.

26. Did you suffer any ill effects from working there?—Yes; and am suffering yet.

27. Did you make any complaint to the Inspector?—I did not.

28. Why?—I would have been "sacked" instantly if I had.

29. Do you know of any miners having been "sacked" through making complaints to the Inspector?—I know of men who were suspended for a time through saying there was bad air, and that made the rest of us hold our tongues.

30. How often did the Inspector visit the mine?—I could not say, but he was there pretty often.

31. Do you consider, as a practical miner, that the Inspector knew the state of the air in the mine?—I leave a practical miner to judge for himself, and I took him to be one along with the rest of us.

32. Do you consider that the Inspector knew the air was bad in the mine?—He was bound to know that it was bad. I can answer in no other way.

33. Did you know when the Inspector was coming to the mine?—I knew on that particular day he was coming.

34. Did the miners know, as a rule, when the Inspector was coming to the mine?—We knew every time he was coming.

35. How did you know?—A lot of preparations went on two or three days previous to his visit.

36. Who told the practical miners that the Inspector was coming?—They did not need to be told when the preparations were being made.

37. Did any of the officials of the Cardiff Company tell you that the Inspector was coming on any particular date, as a general rule?—I knew the Inspector was coming the morning that we went away. Tom Sharp was deputy in the east dip that day, and Mr. Marshall came down and asked him to try and get as much air into the mine as he could that day, as the Inspector was coming. When Mr. Marshall turned his back Sharp told my brother, "Do you hear what the old b—— is telling us to do?"

38. Do you know of any other occasion when anything was done to let you know the Inspector was coming?—Yes; by the deputies going round and making inquiries as to whether we wanted this thing or the other thing done. That is why we knew the Inspector was coming again.

39. Do you know whether Mr. Frank Beirne is a competent miner?—Yes.

40. Have you worked with him in the face?—I have worked in the next bord with him, and on different occasions alongside of him. I consider he was a very careful miner.

41. Was the refuse always brought out of the mine?—It was not. I have received measurement for it inside, instead of sending it out in the skip.

42. Did the Inspector know that?—I do not know. Sometimes orders were given for it to be taken out, and at other times it had to go into the stack.

43. If refuse was stacked in the mine, would it be likely to do any particular harm?—It was olid stone.

44. *The Chairman.*] What is meant by "refuse" is slack-coal dust?—I never saw any coal-dust; it was stone that I always stacked.

45. *Mr. Cottrell.*] Was anything left in the mine, to your knowledge, that you thought might possibly cause fire to ignite?—Yes, when we were drawing pillars.

46. Was any refuse left in the mine that might cause fire?—I could not say. I do not know of any slack being left. We cleared everything away with the shovel. We never left any behind, that I know.

47. *Mr. Harden.*] Whenever the Inspector came the air was better, and everything was in ship-shape order, as far as it could be made?—No, it was not.

48. Was not that what you said?—No. You could not put air into her in many places.

49. How could you work there if there was no air?—We had to work.

50. How long did you work?—Four years.

51. Four years without air?—I am speaking of a particular place. I was not there for four years. I was three months in the east dip taking out the pillars.

52. At the time you drew attention to the fact that you had come out to "let her settle," do you remember if any conversation took place between Mr. Beirne and the Inspector?—There was a conversation between them. Beirne referred at the time to having been thirty years underground, and that he felt competent to take care of himself in case of danger.

53. Did Mr. Beirne complain to the Inspector?—There had been complaint about the timber between Marshall and Beirne.

54. But was there any conversation between the Inspector and Beirne?—No, in alluding to the danger of working.

55. And you subsequently went in and worked?—Yes.

56. About how long were you working afterwards in that particular place?—I could not remember; the east dip did not go on a month after that. I was put over the bridge to work at that time.

57. Did you work out the pillars you spoke of?—They are not worked out yet.

58. Why not?—That was a matter which lay with the manager.

59. It was not because the ground gave way?—Perhaps it was because it was not practicable.

60. You came out when told to stop working there?—When the manager stopped the place we had to come out.

61. *The Chairman.*] You went on working until the management stopped you?—Yes. We only came out when she was going too badly for us to stop in.

62. *Mr. Harden.*] And you say you made no complaints either individually or as a body to the Inspector?—Individually we did not.

63. Did you as a body of men in this place?—I could not remember.

64. Do you remember taking any part in any complaints?—I do.

65. When was that, and what was it?—It is a long time ago to remember, and I only got my summons to appear this morning. We said we would make complaints against the Inspector in the union.

66. Who did you say that to?—Amongst ourselves on the committee—that the union as a body would make complaints about the way in which things were going.

67. Was this after the occasion you have told us about?—Yes, about a month or so after.

68. Did you make that complaint?—Yes, there was a complaint made.

69. What was it about, and who to?—It was made by the union. At that particular time I took ill, and have never been in the Cardiff Mine since. I took part in the complaint. I gave my word to the men that we should complain of Mr. Tennent for not having air in the pit. There was a complaint made, but I was not among them at the time. I heard of it afterwards.

70. Who was it made to?—To Mr. Cadman, I believe, the Minister of Mines, as to how we were handled. I have not worked three days in the Cardiff Mine since that.

71. Do you know whether coal was worked out or exhausted at the east dip?—I could not tell you.

72. Do you know that it has fallen in?—I could not say. It is now full of water.

73. *The Chairman.*] Would it not have fallen where you took the pillars out?—It did fall in where we took them out.

74. *Mr. Harden.*] At this time was Beirne working at the pillars?—Yes, he was working on a pillar.

75. How long did he work on the pillar when the Inspector came?—I could not say.

76. How many days or weeks?—I do not think he had been three days started on the pillar he was on.

77. *Mr. Cottrell.*] Will you tell us what the Inspector did after he had a conversation with you, and went on where the pillars were?—I could not say.

78. Do you remember anything the Inspector said when he came back?—He said she was safe.

79. Are you a member of the union?—Yes.

80. Are you a member of the executive committee?—Yes, I was a member of the committee up to the time I knocked off working in the pit.

81. How often have you had to go out of the mine for want of air?—I was in bad health, and had to go out pretty often at that time.

82. Was that owing to your bad health or to the state of the air that you had to come out?—If there had been air in the pit I should not have needed to come out.

83. Have you known other miners not in bad health have to come out of the mine?—I knew of another miner there knocking off and coming out because of the bad air.

84. *The Chairman.*] What is his name?—John Tressman.

85. Do you know any others who had to come out?—No. The air at the time was the subject of continual talk with the men.

86. Do you know that the union made a complaint about the air to the Minister of Mines?—Yes; I was told afterwards.

87. *Mr. Harden.*] Do you remember when the fan-ventilation was put on?—Yes. I have no dates for it.

88. How long was it before you knocked off?—Before I started in the east dip the fan was on.

89. Was the air bad after the fan was put on?—Yes; for the reason that the fan never started until 8 o'clock in the morning, and knocked off at half-past 4.

90. Who gave the order for the fan to start and knock off?—There was a man there to attend to it.

91. What shifts were you working then?—From 8 o'clock to 4.30 p.m.

92. How long do you think the fan took to clear the mine of bad air?—It might not have taken long if there had been anything to direct it.

93. Did the fan improve the ventilation?—It improved it a little if the canvas had been kept in order.

94. Could the company have taken any other means to ventilate the mine?—Yes; it could have ventilated it better than it did.

95. How?—By using canvas in the proper way. Canvas would be put up in some places in the main thoroughfare, and leave given to tear it down again, and it was not renewed.

96. *Mr. Lomas.*] Do you mean, when you said there was no air in the mine, that there was not sufficient quantity, or none at all?—In a good many instances the air came as it would. There was nothing to put it to your face or take it away.

97. What did you mean when you said there was no air in the mine?—There was not sufficient quantity.

98. Do you know of any instance where the top weight overran the pillars while the men were working and buried them?—Yes.

99. Would you consider that dangerous?—Yes.

100. Were there proper stoppings round the bords to conduct the air to the working-places?—There were no stoppings in a good many instances—they used nothing.

101. The air could go back to the bord and along to the return air-shaft?—Yes.

102. What sort of stoppings were used in the mine?—Some were like flooring-boards—tongued and grooved. They were the permanent stoppings, put in after the fan was put up, on the top side, to keep her from drawing from the outcrops.

103. Was there any return airway in this particular block where you were taking out the pillars?—There was at one time.

104. With regard to the drop-sheets, supposing there were five bords that the air had to go past, was there one drop-sheet or two?—I never saw double drop-sheets used in the mine all the time I was there. On one occasion I saw two in one place.

105. Was it due to the fact that the pillars were too small that the mine ran and covered the pillars you spoke of?—In that particular place—the east dip—the pillars were of uniform size.

106. What size were they?—Half a chain square, or they may be more. They were 30 ft. by 30 ft.

107. Did the pillars give way off the sides?—Yes.

108. Was that caused by the nature of the coal being soft?—No; it was caused by the roof crushing them out. In the east dip there was no soft coal.

109. What kind of a roof had you?—Fireclay.

110. How much in thickness?—I could not say. There was enough. You could not see the top.

111. Was it difficult to timber?—We had a coal top to put our props in.

112. *Mr. Proud.*] Was there a good deal of coal wasted?—Yes.

113. Were the pillars robbed or was the coal taken off systematically?—In that east dip it was wrought pretty fair.

114. Did you ever travel through the return airway?—I never saw it. I saw it to a certain length, but it only led me on to where I could go quicker by the main road. When we came to the east dip she was closed and was fallen away there. When we went up the back way we had to cross the main way. It was better to make for the main heading than the back. We were on the left side and the airway way was on the right. We were on the main way all the time after that.

115. Was your ill-health due to working in bad air?—To a certain extent it was due to working in the powder- and dynamite-smoke.

116. Did you ever try the air to see what the ventilation was like?—I had no means, except what a practical miner had.

117. It was very feeble?—Yes.

JOHN GIBSON examined.

1. *Mr. Cottrell.*] You are a certificated mine-manager?—Yes.
2. How many years' experience have you had at coal-mining?—Twenty-six.
3. Where has your experience been gained?—In Scotland and in this country.
4. How long have you been mining in this country?—About fifteen years.
5. Do you know Mr. Francis Beirne?—Yes.
6. Have you worked with him?—Yes.
7. At Denniston?—Yes.
8. Do you think he is a competent, careful miner?—He proved himself to be quite capable while he was working with me.

9. And a man of good character?—Yes; and a very industrious miner.

10. Had you anything to do with the Cardiff Mine?—No.

11. *Mr. Harden.*] How long was Mr. Beirne working with you?—Several months—a cable and a half. One full cable and part of another.

12. *Mr. Cottrell.*] You had known him some years before that, although not working with him?—I knew him by sight before that. He was working in the mine. I have been intimate with him for the last ten years.

13. You have seen nothing to change your previous opinion of him?—No.

FRIDAY, 25TH JANUARY, 1901.

JOHN TRESSMAN re-examined.

1. *Mr. Cottrell.*] You produce your letter of dismissal from the Cardiff Mine?—Yes. "11th March, 1899.—Mr. Tressman.—Sir, with reference to your notice to-day, the receipt of this, I regret to say, does not preclude my carrying out the intention formed when in your place to-day. Your repeated absence from work is a great loss and inconvenience to the company, and I must perforce put a man in your place on Monday, as it is most important that it should be pushed ahead. Your services will not be further required.—Yours, &c., GEORGE H. BROOME, Mine-manager."

2. *The Chairman.*] What is meant by "with reference to your notice"?—When I was off work through being unwell I was accustomed, for my own safety, to send a note to that effect.

3. *Mr. Cottrell.*] That is the reply to the note you sent in?—Yes. I would like to make a statement in reference to his remark that it would be an injury to him in carrying out the work. Had he wanted this place put through for ventilating purposes there were at all times men ahead of the place put through, therefore these nine or ten men were working ahead of the air of any return. He drove my place 12 ft. wide instead of 6 ft., and worked it in one shift. Had he wanted it through quickly he could have worked with a double shift and made it narrow. I lost less time than any other man in this district, and was made a victim for alleged loss of time. Mr. Broome mentions my repeated absence from the mine. I will now draw your attention to the many ways I have been absent during the six years I worked for Cardiff Coal Company. I was a member of the Conciliation Board for close on three years, and when the Board was called together I was very often fourteen days from home at each sitting. I was president of the union at this place for four years, and delegate to the Trades and Labour Council, and their sittings generally occupied one week. On one occasion Mr. Beirne, the other victim mentioned in this inquiry, and myself went to Wellington as a deputation to the Government to try and get the guarantee Bill repealed from the Ngakawau and Mokihinui section of railway. I might mention that we were successful. That saved the Cardiff Coal Company something near £4,000. I was away fourteen days on this occasion, and on several occasions I have been to the Harbour Board in connection with the railway haulage-rates. I have never had a disagreeable word with any manager or any mine officials during the forty-two years I have worked in coal-mines.

4. Was this heading being driven for the purposes of ventilation?—No.

5. You do not think it was done in the best way to get the ventilation there?—I am positive of that.

6. And the ventilation was bad when driving that heading?—There were not many men working two-thirds of their time on account of the bad air.

7. Did the Inspector come into that part of the mine?—Yes.

8. Do you think the Inspector noticed the state of the air?—He could not help but notice it. It was full of powder-smoke, and the men could not work in it except by putting their lamps on the rails.

9. Have you seen the Inspector put his lamp down on the rails?—His lamp would not be more than a foot or eighteen inches off the rails, and his lamp would be 50 per cent. larger than ours.

10. He had to carry his lamp close to the rails on account of the powder-smoke?—We all had to do that.

11. Constantly?—Yes, all the time in that section. I might add, also, that had this place been put through it would have improved the ventilation, simply because there was no mechanical means of ventilation. Canvas had been put put up, leaving an intake 8 ft. by 7 ft., and 2 ft. by 7 ft. of a return, and the canvas was very poorly erected.

12. *The Chairman.*] Was the place never put through?—Yes, after I left.

13. Did the ventilation improve then?—Not until the fan was erected. I was told it was very good then.

14. *Mr. Harden.*] You cabled to this place?—Yes.

15. This bridge heading was a pretty hard place, was it not?—Yes.

16. And you do not like those hard places?—I like hard places the best.

17. Then, you preferred this place?—I had no preference.

18. Were you at all anxious to get out of it?—No.

19. Could you do as well there as in other parts of the mine?—No. We did not make an average wage in the place.

20. What do you call an average wage?—10s. or 11s. a day. We were making about 9s.

21. You were only working two-thirds time?—Yes, about that. Some men lost a week at a time.

22. *Mr. Lomas.*] How often were you laid off work?—I only lost three days in that bord. I lost about five days in three weeks. We only worked in that bord about a week.

23. When you had to carry a lamp so near the ground was it merely to see your way, or because the lamp would not burn if carried higher?—We had to lower the lamps there because of the mixed air in the atmosphere. I never noticed any black damp or any explosive matter in this mine.

24. If you worked three days in the week, did you average 9s. a day for the three days?—Yes.

GEORGE LOMAS, Coal-miner, examined.

1. *Mr. Cottrell.*] How many years' experience have you had?—About fifty-three years. I started in 1848.

2. You were working in the Cardiff Mine?—Yes.

3. When did you start?—I worked twice there, nine months as a miner and six months as a deputy. I went there just after the Brunner disaster, and left before the Cardiff Mine stopped. I was there twelve months before they stopped.

4. For how long before the mine stopped were you a deputy?—Six months.

5. How long before that was it when you first went into the mine?—I cannot remember. It was the first work I started after the Brunner disaster. I worked nine months, and then must have been away twelve months.

6. During that nine months what was the state of the ventilation?—The mine was not developed in that time. I had not much to complain of where I was during that nine months.

7. Did you know of any complaints by others?—I did not hear of any during the nine months.

8. That was between 1896 and 1897?—Yes, somewhere about that.

9. After that nine months you were away how long?—It was two years last Christmas when I started to work there as a deputy.

10. How long were you there then?—Six months.

11. What was the state of the ventitation during that six months?—In what was called the level section it was very bad, and complaints were made about it.

12. And in other parts of the mine?—The other parts were not so bad. In No. 1 there was what was called natural ventilation.

13. Was anything done to improve the ventilation?—When I heard the men complaining I was working in this section as deputy, and when I had a bit of spare time I tried to remedy it. I went round and found that the stoppings were in a very bad state of repair, and the drop-sheets were also in bad repair.

14. Did the Inspector visit the mine fairly often?—I cannot say whether he visited it during the time I was in this section. Mitchell was in this section before me. Mr. Marshall got his leg broken, and I was put in this section in his place.

15. In the position you were in would you not see whether Mr. Tennent came there or not?—He might have come and I not see him. I could not swear whether he was there or not.

16. Did you do anything with reference to the complaints made to you?—I saw Mr. Broome, and told him I wanted him to get a truck-load of timber, and that we wanted some brattice. He said he would get it. He got some brattice from the Westport Coal Company, and I mended the drop-sheets, and in that level section I had no complaints.

17. You cannot say anything about other parts of the mine?—Not at that time.

18. Did you hear any complaints from others?—I cannot say that I did.

19. By your exertions the part you were working in was improved?—Yes.

20. Did the officials congratulate you upon that?—Mr. Broome complimented me three times. He said that Cardiff was never so well ventilated as it was then, and I believe that Mr. Tennent made a remark in his report that the ventilation at Cardiff was greatly improved.

21. *Mr. Harden.*] Was Mr. Beirne working there?—Yes.

22. Did he meet with an accident while you were deputy there?—Not to my knowledge.

23. Have you had experience of him as a miner?—Yes.

24. What do you say about Beirne as an expert miner?—He has not been brought up as a miner all his time. He is what I should call a passable miner. There are many worse, and many better.

25. Had you any fault to find with him in his work?—No.

26. Was he the sort of man you would put in a difficult place?—I would not take him for choice in a very difficult place.

27. *Mr. Cottrell.*] Was he in your section?—Yes.

28. And you had no complaint to find with him at the time he was there?—He did his work all right, and I had no complaint to find with him.

29. Was he a good timber-man?—He timbered the place as well as the majority of miners do.

30. You had no reason to speak of him differently from other miners?—No.

31. *Mr. Harden.*] Had you ever any occasion to withdraw Beirne from a place?—Yes, on one occasion.

32. Where?—It was in what is called the head of the east dip.

33. Why did you draw him?—He was working with a man named McLaughlin, who asked me to come and look at his place. There is a fault up each side of it. It was about 15 ft. wide, and all the roof was under timber. I told him to be very careful, as it wanted good timbering. McLaughlin said, "If you come and look at this place I will be satisfied." I looked at it, and found that I could put my arm in each space between the timbers. I said, "Frank, you must come out, and if you see Mr. Marshall you can tell him that I cannot find fault; you can't work in this place." I barricaded the place up, and in two hours afterwards it was fallen in.

34. When you told him to come out did he want to stay in?—He said it would be all right. When I saw the breaks in the roof, and that the weight of the roof was pushing the props into the floor, I saw where the danger was and told him to come out.

35. *Mr. Cottrell.*] Is it the usual thing to draw a man in a case like that?—Yes.

36. *Mr. Lomas.*] Of what material were these stoppings made?—Brattice, and here and there a board put across and brattice put into the two sections.

37. Do you consider that kind of stopping satisfactory?—No; I prefer the close-board stoppings, with brattice over the top of them.

38. You were round the whole of the faces later on?—Yes.

39. Did that include other parts of the mine?—Yes.

40. Did you find the other parts of the mine ventilated?—When Mr. Marshall came back to his work I was in the Dip section, and I found a lot of complaints. I got some brattice and used it, and heard no complaints about the ventilation after that. When I was leaving I believe it was as good for ventilation as any mine on the West Coast.

41. Where Beirne and McLaughlin were, did the roof come in through any fault of theirs?—No; it was as well timbered as if anybody else had done it; but the roof pushed the props into the bottom.

GEORGE LOMAS examined.

1. *Mr. Corby.*] You are the general manager of the Mokihinui Mine?—I am called the president of the Westport Co-operative Coal Company, now working what was known as the Mokihinui Mine.

2. How long is it since you commenced operations at the Mokihinui Mine?—We started on the 1st June of last year.

3. Before you took up that lease did you see Mr. Tennent's report on that coalfield?—No.

4. Would it have affected your judgment if you had?—No.

5. Would you pay any attention to any expert's report?—Not if I could see the place myself. I would prefer my own opinion to any man's report.

6. But suppose you were a merchant and knew nothing about the place?—That might alter things.

7. Did you have any conversation with Mr. Tennent before going into the business, or had you any reason to think he did not report well of the Mokihinui Mine?—No; I had no conversation with Mr. Tennent about the matter, and when we made application for the lease we went there.

8. Last June you commenced operations?—Yes. We were about six weeks before we sent in any coal.

9. How much coal have you sent out?—Between 14,000 and 16,000 tons up to now.

10. Can you give me any idea of the wages that have been paid to the men in this district?—Between £3,000 and £4,000.

11. How much have you paid to the Harbour Board at Westport?—We have paid for haulage on the railway £2,250.

12. How did you know that the coal existed there?—A party of us were negotiating with the old company. I went through the mine, and found there was enough coal to make a payable concern of it with strict economy.

13. If Mr. Tennent or Mr. Hayes had taken time to go through and inspect that place properly, could they not have seen that this coal was there, even though they are not such practical miners as you are?—I do not think I am here to speak on Mr. Tennent's abilities.

14. Did Mr. Tennent ask you at any time to confer with him regarding the fire at the Cardiff Mine?—No; he said once that he might want some help, as there were no men about, and I told him we were at his service at any time he wanted us.

15. Did he call upon you?—No.

16. You were working at the Cardiff Mine at one time?—Yes.

17. What kind of coal was it on both sides of the main road: was it fairly good coal?—There is a good piece of seam-coal on the right-hand side of the main drive.

18. If you were called upon to superintend the putting-out of the fire, would you not make some attempt to locate it and stop it off, using a fan like that at Cardiff?—That is a difficult question to answer, because it depends upon the atmosphere to some extent. In a natural current, if one end is more elevated than the other, it is more likely to be the outlet. If it is situated in coal it is just likely to blow one way six hours, and then blow the other way six hours.

19. Supposing you observed a little smoke oozing from the tunnel, do you think you could contrive some means by which you could go up a little way with safety?—If placed in that position, and I had a good party of men with me, I might volunteer, but there is a certain amount of risk.

20. Supposing you thought it was a bit risky, and there was a small force even, do you think you could get up with safety?—You could speak better of these things if you saw them.

21. *Mr. Harden.*] As regards the Mohikinui Mine, have you developed any more coal since starting operations in taking out the pillars?—We are not taking out the pillars. We are driving up the creek, in new ground altogether. We have been splitting some of the pillars.

22. You say there is good steam-coal on the right-hand side of the main drive?—Yes.

23. What quantity?—I would not say. There is a lot of big pillars. The place I am referring to is where Dunn was hurt. There are some thousands of tons of good steam-coal to be got out, and in the No. 4 section there is a lot of good steam-coal.

24. How much could you get out?—That depends upon the nature of the roof.

25. Do you estimate that you could get 10,000 tons?—I think I could treble that.

26. Do you think that would be the outside estimate?—I think I could get more, as I believe the field goes back there on the No. 4 section.

27. *Mr. Corby.*] Supposing you drew the pillars on both sides of the road, how much would you get?—It is a stone drive. You could leave a certain amount of pillars in and keep the tunnel safe.

28. *Mr. Harden.*] The fire does not interfere with the No. 4 tunnel, does it?—No.

ANDREW CAMPBELL, Miner, examined.

1. *Mr. Corby.*] Have you been a miner in Victoria?—No, but I have in Queensland and New Zealand.

2. Have you heard the evidence of the witness McIndoe?—Yes.

3. Do you reckon he was giving a fair report of what occurred at the Cardiff fire?—Yes, I could corroborate his evidence all through.

4. Do you think if you had got instructions to go ahead, and had had plenty of men and material, you could have put that fire out without it damaging the main road?—I had an opinion that it could be done at the time.

5. You do not think that Mr. Dixon took the right means to prevent the fire spreading?—No, not right through. I cannot say anything about his plan of working, as I never had any experience of fires; but I do not think it was right to leave it from the Friday until the Monday. I think it was contrary to their chance of putting it out or confining it to any portion of the mine.

6. Were you up the mine after the first stopping was put in?—Yes.

7. Do you think you could have gone further up?—Yes; by putting up temporary stoppings first. I am of that opinion.

8. Were you at the building of No. 2 dam?—No.

JOHN GIBSON, Mine-manager for the Mokihinui Co-operative Coal Company, re-examined.

1. *Mr. Corby.*] You did practical work as a coal-miner for a long time?—I did up till lately.

2. You know that a fire occurred in the Cardiff Mine?—Yes.

3. Did you read any of the reports concerning the fire?—I saw the newspaper reports only.

4. Do you think it was a practical method of working to put a fan on to try and suppress the fire?—I do not know anything of the situation at all of the fire, and therefore it would be a difficult matter for me to express an opinion. I could hardly do it. Men could not go into the place where the fire was burning without getting fresh air.

5. Do you think a fan was the proper way of getting it in?—Probably it was the only means available.

6. If you had got into a bord off the main road, do you think you would have put stoppings up by bratticing the main road off?—I would consider the stage the fire had arrived at.

7. But considering the fire was only smouldering?—I would have tried to conduct air into it to get near it if it was only heated, and not giving off gases. But you have to consider the roofs, which are sometimes very bad in these old workings.

8. Would it not have been better to try and stop the fire off?—Not being acquainted with the workings, I could not take it upon myself to express an opinion. To go into a gob fire like that you must have fresh air.

9. Do you think it was right to leave the mine from Friday to Monday after the fan had blown the fire up?—When it was known there was a fire there, of course no time should have been lost. I must admit that.

10. *Mr. Harden.*] Having discovered the fire on the Friday, and located it, and put in your stoppings of a temporary nature, do you think there was anything very improper in leaving it until Monday, in order to take stronger measures to subdue it?—That was the best course, under the circumstances, until they got the materials there.

11. And I suppose these preparations cannot be made in an hour or two?—No.

12. It takes time to do these things properly?—Yes.

13. *Mr. Corby.*] Do you think the preparations necessary should be ready within four days?—You cannot move machinery and get materials on to the ground, and get it into position, in a few hours.

JOHN FOSTER examined.

1. *Mr. Cottrell.*] You are a practical miner, residing at Denniston?—Yes.

2. How many years' experience have you had?—I suppose about thirty years, on and off.

3. Do you know Francis Beirne?—Yes.

4. Did you work with him at Denniston?—Yes.

5. What kind of a miner is he?—A very careful miner, as far as I could say from seeing him work, and a very good timberer. He was rather above the average, in my opinion, as a coal-miner's timberer.

6. How long did you work with him?—I was alongside of him working for six months.

7. Did you ever have any accidents with him?—Not that I am aware of. The only thing against the man, on the whole, was what he told you himself—that an order went round not to fire shots in the morning, and he did it at dinner-time.

8. Do you feel inclined to speak about the method of ventilation adopted in the Cardiff Mine?—No; I was never inside the Cardiff Mine.

9. Can you speak of the method of ventilation?—I do not think natural ventilation is of any good in these coal-mines. I did not look at it to see if it was done properly. If we had a breeze in one direction there would be ventilation by natural means, but if not we should have to put up with the smoke in the mine.

10. *The Chairman.*] Does not the ventilation depend upon the level a great deal?—I think not.

11. I mean if the ingress is on a higher or lower level than the egress?—I think it will all depend upon the draught that is going in. I do not think natural ventilation should be depended upon in these mines, but think the air should be compelled to go where it is required. The law gives us so-many cubic feet per man and horse, and if it is carried out we should all benefit by it. It would be no inconvenience to any company if all had to do the same.

12. *Mr. Cottrell.*] After making your report on the Cardiff fire, do you remember being in conversation with Mr. Mitchell and Mr. Tennent at any time?—Yes, when they heard that we were the Commissioners appointed to report on it.

13. Do you remember a remark being made about Peter Martin to the effect that he was not to be trusted, as he had been tampering with the dam?—Yes; but Mr. Tennent was not there at that time. It was Mr. Mitchell, myself, and Mr. Alison. The three of us were standing near the dam, and he pointed it out to us. I would not like to go so far as to say that Mitchell said that Mr. Martin was not to be trusted. He said the dam had been tampered with, and that he thought Martin had done it.

14. *Mr. Harden.*] Did you examine the dam?—We had not touched it up to this time.

15. Had you been to it?—Yes.

16. Could you say whether it had been tampered with?—No. We had to clean it out before we could get to it. We only took it for granted that it had been done.

17. When cleaned out could you see whether it had been tampered with?—No; but the prop was not in a perpendicular position. There was an indication that it had been moved; perhaps the prop had not been properly wedged. The pressure behind would do it. It came outwards, and the pressure might have pushed it out.

18. Did Mitchell say that Martin had tampered with it, or that he believed he had?—He said he thought that Martin had meddled with it.

19. Mr. Martin had something to do with the construction of the dam, had he not?—Yes.

20. *The Chairman.*] Did Mitchell say "meddled" or "tampered"?—Tampered.

21. *Mr. Harden.*] Did Mitchell mean that Martin had done it with malicious intent?—No. I understood him to mean that Martin did not know anything about it, and should not have done it.

22. Had the dam been leaking before this?—It was leaking before we went there, because the whole body of clay was washing away on one side. The water had free access through the bottom of the dam. They had an iron pipe there, but it was leaking without that.

23. *Mr. Cottrell.*] Did Mitchell give you to understand that he was the man practically employed to construct the dam, or did he make out that Martin was the man?—I understood from Mitchell that both were in it.

24. But that he was practically the chief one of the two?—I could not say that. I understood that the two of them were in the contract for building this dam.

25. Do you not think Mitchell was speaking maliciously when he tried to make out that his partner had been tampering with the dam? Did he give you any reason for thinking that Martin had tampered with it?—No, he did not; but we came to the conclusion that there was friction. There was friction, in our opinion, between the whole lot.

26. What do you put this friction down to?—I could not say. We understood that Mr. Tennent let the dam with thorough instructions, and that they were carrying out his instructions. It was very plain to me and to everybody else that there was friction, but what it was through we did not know.

27. Had you any reason to believe that the dam had been carelessly built?—As a miner, I think it was impossibie to build a dam with the material they had used.

28. Will you tell us what stuff was used?—It was simply wet pulverised clay, dug out of the ground, with a wooden stopping in front of it. It was impossible for them to ram the clay in in that position, for it would have to be rammed inside, and they could not get to it. Another thing was that the clay was full of water, and if there was any sweating at all it must have got smaller. If the clay had been sun-dried it would have been possible to make it tight. As it was, it was impossible for any man to put a dam in with it.

29. Did you see any dynamite in the foundation of the dam when it was cleared out?—No.

30. Did you see any sign of dynamite having been used?—No. When we went in Mitchell was cutting out a foundation for another dam.

31. Was Martin there at all?—No. He was over the other side of the hill, getting material or plant.

32. When you were over on the other side of Chasm Creek did you notice any subsidence of the foundation of the bridge?—No. The terrace was falling away above, but there was no subsidence of the bridge.

33. Was there anything there to damage the bridge?—Not at that time. As the coal burned out there was no fear of the bridge, in my opinion.

34. Would the burning of the coal affect the anchorage of the bridge?—I think not. It should not.

35. Do you think the anchorage of the bridge was safe?—As far as we saw, it was. That was a question we had nothing to do with. Taking a casual view of the matter, I do not think it could do. If the anchorage was put down at the bottom of the main drive the coal could not affect it, in my opinion. Where the anchorage of the bridge was the coal must have been 30 ft. above it.

36. Had you any reason to think the ground was slipping and the anchorage was weakening?—No; and I do not think it would happen.

37. *Mr. Lomas.*] Did Mitchell say in what particular way Martin had tampered with the prop?—No; he just said he had tampered with it.

38. He gave no definition of it?—No.

39. Did you examine the floor on which the dam was resting?—No; we were quite satisfied that it was of no use, and we simply opened it.

40. Was the ground broken under the dam?—We did not clean it out. We simply thought it was a large leakage.

41. Did the water get behind the dam?—Yes.

42. How far was the dam from the plank-stopping?—We did not get beyond the dam.
43. Was there no inside wall?—Yes; it seemed as if a second wall had been built.
44. What was the other wall built of?—Sawn timber, about 4 in. or 5 in. square.
45. Was that well caulked?—Just the same as the rest. It seemed to be well caulked.
46. What depth of clay would there be inside those two walls?—The clay had been placed close up to the roof. One part of the dam was standing, and the whole of the clay at the other end of the dam had been washed away from top to bottom.
47. Were you satisfied that the clay was soft when it was put in?—Yes, I am satisfied of that, because the men showed us where they got the clay from.
48. *The Chairman.*] You are the Mr. Foster who inspected the place in company with Messrs. Shore and Alison?—Yes.
49. How were the men to get into the mine after the fire unless they put up a fan?—The current might be coming out one day, and going in the next. You will find from Mr. Tennent's report that he had been in the mine under those two conditions, and at the time there was not much danger until she burst into flame.
50. Would you risk going into the mine, trusting to the current not changing until you got out?—The report goes to show that Mr. Tennent did it himself.
51. But when they wanted to go in to build a dam, or put in stoppings, how were they to get in unless they drove the smoke, gas, or flame backward?—If the air was drawing right they would not want to do anything. They would not require to drive in any air at all. In my opinion, the main roadway should not have been bratticed at all. It was after the main road was bratticed that she burst into flame, and that caused the whole trouble. I think you will find that the report states that the rope was cut so-many chains inside the mine—that is, cut a long away from the dam.
52. In their report of the 29th January, 1900, Messrs Tennent and Dixon say, "In connection with the underground fire in the Westport Cardiff Company's mine, we, the undersigned, have this day endeavoured to locate position of said fire, but owing to the unreliable ventilation, which is 'natural,' and the air-current thereby reversing every few minutes, we are unable to reach the affected part without incurring undue risk. We have therefore decided that no further risk to human life be incurred, and that a reliable current of air must be established to obviate this. To insure this current we decided the fan shall be removed from its present position, and temporarily set at opening to Chasm Creek from first section of the mine. Further, in the meantime all openings to-day are to be sealed off by close bratticing, and no workmen are to enter the section of the mine until authorised by the person in full control of operations." You say in regard to that, "We cannot but express our surprise at the method adopted of sealing off the mine by brattice-cloth stoppings, and must state that, if at this point had temporary stoppings of boards lined with clay been used, we consider the seat of fire could easily have been located in a day or two, besides preventing spread of fire beyond Hector block, thus preserving haulage-road and workings from mine-entrance to that block. The utilisation of a fan to create a strong draught through a mine on fire was contrary to the recognised custom of dealing with fires." That is what I desire you to explain. How were men to get in unless they established this current of air that Messrs. Tennent and Dixon speak of?—They have been in. With this natural means of ventilation it all depends upon the current of air. If going in in one direction they could go in, but if it was going in in another direction they could not go in.
53. Supposing the current of air changed while they were in, would they not be caught?—I do not think the change would come so quickly as all that. If that fire had been left dormant it was only a matter of time for the current of air to change and enable them to get in.
54. *Mr. Lomas.*] As a practical miner, how long do you think it would take with two men to put in a temporary stopping?—Say, four hours; but on a pinch I think it might be done in less time than that.
55. Supposing there had been an accumulation of gas, would the danger have been increased by the putting-on of this fan and drawing the air over the fire?—I think it would. From the report we got there was an explosion.
56. What method would you have adopted, in order to get into this mine, to carry the air with you and not draw it over the fire?—I should have adopted the same method as they did—with a very light current of air, just sufficient to keep the men alive.
57. Supposing from the mouth the whole mine was full of smoke, and you wanted to get a chain?—I should have forced the air in front of me.
58. Would not that have forced the air into a flame?—I do not think so.
59. You know of no other method except by blowing in the air?—No. I should have put in a brattice, and have had a return.
60. Then the air would not have gone on to the fire at all?—That is the plan I should have adopted had I been there. I should have forced the air in and had had a return.
61. From your experience as a miner, is that the method generally adopted—after an explosion, say?—Yes. It seems to me, as a miner, to be the only practical way.

TIMOTHY CORBY attended and made a statement.

Mr. Corby: I am one of five gentlemen who were appointed by the residents of this district to represent the district in matters connected with the Cardiff fire. My colleagues are Messrs. James Quinn, James Hunter, Charles Stewart, and John Milligan. The first matter we wish to touch upon is the aspersions cast upon the district by the report of Mr. Hayes, Inspecting Engineer to the Government, when before the Goldfields and Mines Committee of the House of Representatives. He insinuated when before that Committee that we wanted this inquiry made because there was some antagonistic feeling existing towards Mr. Tennent. I wish to say that I have no antagonistic feeling towards Mr. Tennent myself, and that if I thought any of my

colleagues exhibited any animosity towards that gentleman I would not act with him in our present capacity. We do, however, desire to reply in some way to the aspersions cast upon our district as regards the coal industry. We have seen the departmental reports concerning the Mokihinui Coal-mines, and we do not consider they are true statements of fact. In consequence of these reports, it is the opinion of the majority of the people in this district that Mr. Tennent had some ulterior motive for suppressing the coal-mining industry of this district. We want a fair inquiry into the matter, so that the Government and Parliament may satisfy themselves whether the coal-mining industry is worth fostering in this district. We are all anxious to do justice to Mr. Tennent, and, so far as I am concerned, if we have wronged him in any way I shall be willing to apologize most humbly. I entertained a good opinion of Mr. Tennent, and thought he was well disposed towards Mokihinui until I saw his reports and heard of his operations in connection with the Cardiff fire. In support of my view that Mr. Tennent had some ulterior motive in his operations at the Cardiff fire I shall call a number of witnesses.

JOHN LENIHAN examined.

1. *Mr. Corby.*] You were caretaker of the Mokihinui Mine for some time?—Yes.

2. And were working under Mr. Tennent, the Inspector of Mines?—Yes, when the Government took over the mine.

3. Have you any reason to have any antagonistic feeling towards Mr. Tennent?—Certainly not. He always treated me well.

4. You have seen Mr. Tennent's report on the Mokihinui Mine?—Yes. [See Report of Mokihinui Coal-mine, C.–8, 1899.]

The Chairman (to Mr. Corby): Do you object to Mr. Tennent's report to his Minister?

Mr. Corby: I maintain that he did not send in a correct report.

The Chairman: Supposing he did not, what then?

Mr. Corby: I do not object to his giving his opinions to his employers, but this is one link of the evidence I wish to bring to show that he is not favourable to the district.

5. *Mr. Corby.*] Your business was to look after the pumping machinery as well as the remainder of the property?—Yes.

6. It would cost the Government no less to employ you there if you let the pump stand idle, as you had a standing wage?—Yes; there was only one man employed.

7. Later on, when the rope broke, was there not another rope there that could have been put in at very little expense?—Yes; there was a coil of rope there that I could have replaced the old rope with. The pump was driven by an endless rope, which got bad and broke.

8. What would it cost to replace?—It would have cost a couple of pounds for labour only.

9. When the rope got into a bad state of repair did you inform Mr. Tennent?—Yes. The rope finally broke in November, 1899.

10. *The Chairman.*] How long were you working there?—I was in charge of the Mokihinui Mine for three years and a half, but under Mr. Tennent for about eighteen months, during the time the Government had the mine.

11. When did the Mokihinui Company give up the mine?—The Government took it over in January, 1899, I think.

12. *Mr. Corby.*] When you reported this to Mr. Tennent what was his reply?—I sent him a written report that the dip and rope were out of order, and that a new rope was required. I think he said he had forwarded the report on to the Government. He instructed me to keep it going as long as possible, and when it did break to save all plant.

13. When the rope did go did you send him a report?—I sent him a wire, and commenced drawing plant. He came a day or so after, and I had some of the plant withdrawn. The pump was out, and a lot of rails. He suggested putting on an old rope that was previously on the pump, but on examination decided that it was not worth putting on, and told me he would wire away about it.

14. What did you do then?—Mr. Tennent got a wire back from the Government telling him to put on a new rope, and it was done.

15. You said it would have cost £2 at first: what did it cost then?—I think it came to a little over £20.

16. Was there anything in his action to lead you to the opinion that his delay was with the object of having the machinery taken out of the mine?—No; Mr. Tennent led me to believe that he could not get any instructions from the Government. It cost more to pull the plant out than to keep it going.

17. Do you remember Mr. Hayes, the Inspecting Engineer, being there?—Yes.

18. How many times did he come while you were there?—I was not there once when he came, but was there twice afterwards when he came.

19. How long did he remain on the ground?—On the occasions I was there, four or five hours from the time he came on the lease until he left it.

20. Did you hear that Mr. Hayes came down to see some of the miners with regard to taking the mine?—He said he came down because the miners wanted to get the mine, and to see what they wanted.

21. Are you aware that he has written a report somewhat similar to that you have heard read, and by Mr. Tennent?—Yes.

22. Do you think he was long enough on the ground to be able of his own knowledge to write that report, or do you think he would get his knowledge from Mr. Tennent for that report?—I certainly do not think a man could report on the Mokihinui lease from an examination of four hours.

23. When Mr. Hayes was here the last time did he remain longer?—No; about the same time on each occasion.

24. Did he remain long in the Westport district?—I have a hazy recollection that he remained a week in the district.

25. *Mr. Harden.*] For how long before that report of Mr. Hayes's was published was it that the Mokihinui was working?—The mine knocked off work four years last Christmas.

26. Did you know of your own knowledge or did Mr. Hayes tell you that he had ever been over the Mokihinui Mine?—Mr. Hayes told me he had never been over it before I saw him on the first occasion.

27. You say that Mr. Tennent came at once, or a couple of days after you wired to him?—Yes.

28. Did you tell him at that time that there was a new coil of rope there?—No.

29. When the new rope was put on was it that rope or a new rope supplied?—It was that rope.

WILLIAM MCINDOE, examined.

1. *Mr. Corby.*] You are a practical miner?—Yes, now working at Granity.

2. You have been working at the Mokihinui Mine?—Yes, I was.

3. Were you working there when the fire broke out?—Yes. It is about six years ago.

4. You and Mr. Hunter and a few other miners went with Mr. Alexander, mine-manager, to endeavour to put this fire out?—Yes.

5. You were first on the scene, I believe?—I was.

6. Have you had any experience at fires at other places?—Yes.

7. Were you at a fire at Kaitangata?—Yes, at the Castle Hill Mine.

8. Have you been successful in putting out fires?—Yes.

9. Were you working at Cardiff at the time of the fire?—I was.

10. Were you one of the first that got to the mouth of the tunnel after the alarm had been given by the boy Keals?—I was.

11. Who was with you at the time?—Mr. Martin.

12. Will you please state how you found the mine?—On the Sunday morning I happened to be taking a walk down the road to Corby's. Whilst I was sitting talking with others about going to work on Monday morning to take rails from the head of the dip, Mr. Keal's boy came up and said his father had sent him down to say that he thought the mine was on fire, as he had seen smoke coming out of it. We proceeded to the mine—I and Mr. Martin—and on arrival we saw smoke coming out of the main-drive. I said to Mr. Martin, "Now as that smoke is coming out there, I think you had better send for the underground boss when the mine was in operation." That was Mitchell. "Owing to his being underground boss I think he would know where all the stoppings should go in to check the fire." Martin took my advice and did so. I thought he was not very diligent in coming, but he came, and I proceeded over the hill and saw what it was like there. From the bridge end we proceeded into the drive, but could not get further than the first curve on account of the smoke. Mr. Bayfeild was wired to, to send Mr Rowland Broome up. Mr. Broome then came on the scene, and I think he was with Mr. Tennent. Nothing was done, except putting in a temporary stopping of canvas on the side next to the bridge.

13. *The Chairman.*] What else could have been done?—We would have required a certain amount of ventilation to take us in.

14. But could anything else have been done?—The only thing I think could have been done was to take a return in, and that would have enabled us to put in stoppings further in if we had gone in at the other end. We proceeded to the other end of the drive and put up a temporary stopping, within half a chain or a chain inside the tunnel.

15. *Mr. Corby.*] Did you not put in two stoppings before Mr. Tennent and Mr. Broome arrived?—There was only a brattice put up. I could not be certain whether it was done at each end, but it was done at this end. That was all that was done until Monday.

16. Do you think that, if the same system had been adopted for putting out the fire at Cardiff as had been adopted for the Mokihinui fire when you were there, the main haulage-road could have been saved and the fire confined to a small area?—It would have required a return.

17. Do you think that things were taken very coolly, and that not enough energy was displayed?—There was not enough hands there to cope with it.

18. Do you think enough men could have been put on if they had been offered payment?—There were plenty of men about the place.

19. Was Mr. Fleming, a certificated mine-manager, there at the time, and residing within a few chains of the place?—Yes.

20. Was he called upon to assist?—Not that I know of. I think not in my time.

21. Did you hear any one make any suggestions to the men as to what they thought of the fire, or as to what could be done?—I did not. I was there, and what I was told to do I did.

22. Do you think if sufficient men had been put on, that, with enough energy and the adoption of right methods, the fire could have been subdued and confined within a small area?—I think it could have been confined to its own area.

23. *The Chairman.*] What was the right method that should have been adopted?—We required a little ventilation—as much as would have kept us alive.

24. *Mr. Corby.*] From the time you went in first, how long was it before anything else was done?—I think it was between 10 and 11 o'clock on the Monday. I did not take any notice of the hours we went in.

25. When they went in on Monday morning what did they do before closing it down?—They proceeded in as a gang to see how far they could get in.

26. Who went in?—Mr. Tennent, and I think Mr. Dixon came up too. I think they were the leading men.

27. How far in did they go?—I could not be certain of the distance.

28. Were you there when they put the fan on?—I was.
29. How long did it take to erect the fan?—They were a few days.
30. Did you see any one test the air or try to go into the tunnel during the time the fan was in course of erection?—No one went in until the fan was started from the time the mine was closed in on the Monday morning.
31. *The Chairman.*] Do you think any one could have got in?—They never attempted to go in until after the fan was erected.
32. *Mr. Corby.*] When the fan was started and they went in, did you go in?—I went in along with the rest.
33. Who was with you?—Johnnie Clark and several others.
34. Who led you?—I believe it was Mr. Dixon. He was leading man that morning.
35. Do you remember a man named William Cunliffe being in that morning?—I do, but he was in a certain distance behind us.
36. Do you remember that the brattice was put up in the tunnel to concentrate the draught on the fire?—I do.
37. Did you hear Mr. Cunliffe make any remark?—I did not.
38. Did you think it was a proper thing to put the draught direct on to the fire?—I do not say that.
39. If they had kept the main haulage-way clear would they not have been able to erect temporary stoppings on those bores going on to the main drive, and thereby, with enough assistance, been able to put in permanent stoppings of wood and clay, without letting the fire interfere with the main road?—My opinion is that if they had kept the current going on in the main drive it could have been stopped.
40. But instead of that they put a brattice up in the main tunnel and caused the ventilation to go over the fire?—They put a stopping across the curve leading into the back heading of what is called the long jig. They forced a certain amount of air back to keep the smoke back. He thought that if there was not much he would put the fire out with water.
41. There was plenty of water, and the pumps were within 3 chains of the fire?—Yes; but I think it was more than 3 chains.
42. Had you a good power in the pumps?—There were several pumps there.
43. Do you think they could have put on steam-power?—Yes, on one of the pumps.
44. Do you think it was more appropriate to use the pumps and force the water in than to try and get up to the fire with buckets?—Yes, if the hose had been there, certainly. You would not require to go a distance if you have the force.
45. Did you see the fire before the draught was concentrated on to it?—I did not. It was after the air had been communicated and we had taken a return up to it that I saw the fire.
46. What did it look like?—It was a sort of a dim light. You would have thought there was about a box and a half of red ashes there. There was no flame at all. Then the roof got hot, and the flame burst out.
47. Do you know whether Cunliffe was working that day?—Yes.
48. Did you know that he did not come back the day following?—Yes.
49. Did you hear any reason why he did not?—I heard that Mr. Dixon accused him of erecting the fan to make a fire.
50. You were working in that mine up to the finish when the mine was closed down?—I was.
51. Was there much good coal? How much could you have got out of that section?—There could have been a lot of pillars and tops taken out. I know that Mr. Broome intended to take out every pound that was available, any how.
52. You think the fan had the opposite effect to that intended? You think it was heat that caused the fire to burn up more quickly than if you had left the brattice in?—No fire will blaze up unless a force of air is put upon it.
53. How long was it before the fire broke out that you had been there?—I think, as nearly as I can say, about a week when I was up in that section. It might have been barely that.
54. What were you doing there?—Cleaning out a gutter—the water-table from the long jig into the back heading. It was choked up.
55. Did you see any sign of fire that day?—No; it was very cool, and there was a nice current of air going round.
56. Do you think the fire was caused by combustion or incendiarism?—That is a thing I cannot say much about; and, more than that, there was very small coal or smudge there.
57. *The Chairman.*] What was the cause of the fire, in your opinion? Was it spontaneous?—I believe it was spontaneous in some way.
58. *Mr. Corby.*] After the fire blazed up fiercely, what did you do?—We were directed to put stoppings in.
59. Do you know how much air was put on to the fire, or the velocity?—I could not exactly say.
60. Do you know if any message was sent out to get the engine-driver to drive the fan quicker?—Yes, a message was sent to get the engine-driver to get the fan go quicker—according to what they wanted.
61. Was not the main tunnel bratticed off, and all the air turned on to the fire?—Yes.
62. Did the fire blaze up and the roof fall down?—That was after. We got up to the first stenton and past the shaft. We wanted them to make a return with brattice, proceeding up to the fire. That was into the main heading where the fire was. We proceeded from the main entrance.
63. How far would you be from the fire then?—It would be about a chain and a half from the brattice. It would be two stentons' length up. In that there was an overcast brattice put up. That was to cool the roof.

64. Do you think that action would cause a supply of air to the fire and make it burn up and heat the roof instead of cooling it?—It cooled the roof, and it came down with a smash for about a chain.

65. If you had bratticed the bord fully instead of doing that, would you have kept the fire quiet?—Yes, in the meantime; but he (Mr. Dixon) wanted to cool the roof to get up into it.

66. What did you do then?—After that, we ran out to the main road, and had a spell while there was a portion of the air going up. All our tools were up there, and we proceeded to pack up to get the tools up. We got all the overcast canvas, when he (Mr. Dixon) said, "I have seen enough." He told us to take the canvas down and retire to the first stenton, and to put a fast stopping of canvas in. We did so, and, after that was finished, we went down to the main road. She was left standing then for a few days, until Mr. Tennent came.

67. Was that on the Friday evening?—I could not be certain of the date.

68. Do you know when you started again?—I could not give the date. We were a day or two off.

69. Would it not have been easier to subdue the fire by keeping on, although you might have found the first stopping ineffective?—It would have been better to keep going at it. The longer you keep it standing the worse it gets.

70. Were you there the next day when Mr. Tennent and Mr. Dixon arrived?—I do not think Mr. Dixon came the next day. Mr. Tennent started himself to it.

71. What did you do then?—I went to the other side to do something. They proceeded into the drive, and only got up a certain length. The fire was hopeless then.

72. What did you do then?—Put in the clay stoppings.

73. Were you at the building of the clay stoppings from the start?—I was.

74. In what way did you proceed to work?—The outside stopping was dug down on to the floor, and champered a little bit in to hold the timber. There were three stoppings, and packed up solid to the roof.

75. Who was superintending that work?—Mr. Mitchell was our boss then.

76. Was Mr. Tennent there then?—He was there all the time.

77. Do you know whether they expected that stopping to dam back the water?—I could not say.

78. What was your opinion at the time?—I did not know what it was put up for, but thought it was to prevent the ventilation going in.

79. You do not think it was for stopping both air and water?—I did not know it was for that.

80. When you started to put that in, do you think you could have gone in 8 or 10 chains further up the tunnel and put it in there?—We might. It would be according to the air going then.

81. Was the fan working when you were putting this up?—There was no fire where we were putting the stopping up.

82. Was there temporary bratticing between the fire and where you were putting the stopping up?—No; the fire was not within 18 or 20 ft. (? chains) of that.

83. Are you sure there was no temporary bratticing in the tunnel to keep off the back draught from you?—Not that I know of.

84. If you had gone further in could you have put the stopping in?—Yes, I think so.

85. After that stopping was put in what did you do?—We were dispensed with after that stopping was put in.

86. Did you put another stopping in further out than that?—I assisted to put one in next the bridge.

87. *Mr. Lomas.*] The second stopping was opposite to the mouth of the mine, was it not?—Yes.

88. *Mr. Harden.*] Were the workings of the same nature at the previous fires you had been at?—I reckon the Mokihinui workings are principally the same.

89. But not the other fire at Castle Hill?—That would be similar too, but the workings were much deeper.

90. And on a rise?—She had 2,000 ft. of a down grade, and after that the workings were on a rise.

91. How long has the fire been out at Mokihinui?—I do not know whether it is out now. It was blocked off successfully when I was there. I have not been working there any more than about a week since I came back.

92. You say that Mitchell was dilatory in going to the Cardiff fire at first. Do you know where he was found?—No.

93. Or how long it took Martin to find him?—It was Mr. Keals's boy who found him.

94. How long after you sent for him was it before he arrived on the scene?—He was there in an hour or two afterwards.

95. I suppose the time seemed pretty long to you while waiting?—Yes, it did.

96. When did Mr. Tennent and Mr. Broome come out? The fire was discovered on the Sunday?—Yes. Mr. Tennent and Mr. Rowland Broome, I think, came out on the Sunday.

97. Did you not go to the mine with them?—No, I was at the mine.

98. You all set to work to find where the fire was?—We went round to the other side to put up these brattice-stoppings to prevent any air coming in.

99. You say that after doing that the only thing you might have done was to put in a return?—Yes.

100. What would have been the object of putting in the return?—We might have got through the main road.

101. How would you have proposed to put in the return?—I would have put in, if possible, a brattice, or something else, and would have tried a lamp—something like a furnace. It would be only a trial.

102. Where would you have put it?—On the other end of the drive. But, according to the ventilation, from sunrise to sunset in that mine the air went very regularly. We could have got in next morning without any return or anything else.

103. Is that in the place where a full head of smoke was coming out?—The principal part of the smoke, at the curve leading to the bridge.

104. Did you go in at all to try this?—We did.

105. How far did you get in?—Into the curve.

106. What was the air like there?—There was smoke there, and we did no more.

107. You could not get in any further with safety?—Not there.

108. Could you have got in with safety to put in this return?—There was a certain amount of risk; there is at all fires.

109. Was there a considerable risk in trying to put in this return?—The same as at all fires.

110. There were no lives to be saved in the mine?—Not at the time of the fire.

111. It is stated in the petition that if simple means—such as any ordinary miner would have employed—had been adopted, the fire could have been put out. The meaning of that expression is that if more men and more money had been employed?—Yes.

112. *The Chairman.*] Was it an easy thing to put the fire out?—It is not an easy matter to put any fire out. It is very difficult work.

113. When would you have employed these men, supposing you had had plenty of men and money?—I would have employed them until I had got as much air as would have let me into the mine.

114. What would you have set the men to do?—To canvassing up to bring the air into the mine if possible.

115. And then what would you have done?—I would have proceeded then—if I had got my distance in—to try and put my stoppings into it.

116. Where do you think you would have had to get to put in these stoppings?—I would have tried my best to get near the fire, or thereabouts, along the main road. It would be more easy to do it when the fan was on.

117. Then you think the use of the fan was proper?—To a certain extent it was. The ventilation was there.

118. To what extent?—To this extent: The fan would have kept a regular current in the main road and have taken the smoke away.

119. And thus enabled you to get further in?—Most decidedly so

120. After Monday Mr. Dixon had practical charge, had he not, as Mr. Tennent had to go away?—Mr. Tennent had to go away several times on other business.

121. Mr. Dixon came out on Monday, did he not?—I think so.

122. You saw Mr. Dixon and Mr. Tennent go in and try to locate the fire?—Yes, on the Monday.

123. When did Mr. Tennent leave?—I could not say whether it was that day or the following.

124. Who then assumed charge of the operations?—There was a gentleman after Mr. Dixon left.

125. Did Mr. Dixon go away with Mr. Tennent?—I do not know when he went away.

126. Mr. Mitchell was then left in charge?—Yes.

127. Do you recollect when Mr. Tennent returned?—No.

128. When was the first stopping put in?—I could not tell you the date.

129. Do you know where it was put in?—On this side of the drive at the main entrance.

130. Was that before or after Mr. Tennent returned?—After he returned.

131. When that was put in was there smoke in the drive?—Yes; there was always a little smoke coming out.

132. How was the air-current when you went in?—It was backing this way, and when it was backing this way we could not stand it. When it was going the other way it was not so bad.

133. And when the stopping was put in?—It was then going the other way, and was making it better for us to get in.

134. If you were about 10 chains in and it suddenly backed, would it not be a considerable danger to you?—I do not think so.

135. Would it not be likely to affect you?—I would get out of it. It took a considerable time for the smoke to get through when the air was going in.

136. If it suddenly backed would it not bring all the smoke with it?—It would not bring it all at once. It would bring a certain portion back.

137. Would there not be too much smoke for you to work in?—Yes.

138. You would have to knock off work?—Most decidedly; and we should have to go out.

139. Was it not better to make a certainty of putting the stopping in where it was put than to put it in 8 or 10 chains ahead, where you would have had to knock off work, or where there was much risk in it?—I dare say Mr. Tennent could have put a false stopping in, but, I suppose, he was trying to do it the quickest way.

140. Was not the construction of this stopping the quickest way in which he could stop the air going into the drive?—I believe it was at the time.

141. What effect would it have upon the fire?—It blocked all the air off.

142. Were you with them when they put the overcast brattice in?—Yes; I nailed it up.

143. Did it have the effect of cooling the roof?—I think it had.

144. And if the roof had not fallen in, what was the next step to be?—To get further in.

145. Did you for a moment expect the roof to fall in?—I thought the loose stuff would fall down. This was after the fire was discovered.

146. Did you mention it to any one that you expected it to come in?—I did not. That was only my own opinion.

147. Did you for a moment expect that would start up the fire and prevent you getting along?—No; because I did not suspect there was so much fire there.

148. And without cooling the roof could you have got further in?—Possibly we might by going ahead with the return as we were doing. Mr. Dixon, of course, thought there was danger. That is the reason why the overcast brattice was put up.

149. It was put up for cooling the roof and for safety?—Yes.

150. Was Mr. Tennent there then?—No.

151. Were you one of the signatories to the petition of Timothy Corby and others?—I was not.

152. Have you ever seen the petition?—Not that I know of.

153. This is the second paragraph of the petition: "That at the first discovery of the present fire, had simple means such as any ordinary miner would have employed been adopted, the fire could have been easily extinguished, and with little or no expense." Is that so, in your opinion?—It means expense.

154. You say that "proper means" means men and money?—Yes.

155. Do you know where the fire is confined to now?—No; I have never been up there since I came back.

156. If you had put that first stopping where Mr. Corby suggested—some 8 or 10 chains ahead—and constructed it in a similar way to the one you put in, would it have held water?—I do not think so—not a heavy pressure of water.

157. How far back from that stopping was the dam put in?—No dam was put in that I know of.

158. Could you have put in a dam behind that stopping?—Yes, I believe it could have been done to hold water.

159. Either there or 8 or 10 chains in the drive?—If the stopping had been put into the old drive you could have put it in to hold water.

160. How long would that have taken?—You might have put it in in a week. I could not swear to the time in which it could have been done.

161. Are you aware there is a dam at the back of each of the stoppings?—I was not here when this was going on. There was a stopping put in with clay, as I said before, champered but very little in the rock. When that was done we were all suspended, and I left the place.

162. And you have not been back since?—No. I know nothing about any other business that has been done since. I only heard of it by letter.

163. *Mr. Corby.*] You say it would have cost a lot of money in labour and material to do what was required at first: do you think it would have cost £500?—I do not think it would.

164. Do you think that £100 would have been enough?—You cannot give an exact estimate for putting out a fire. You never know when you are going to get finished with it.

165. *Mr. Lomas.*] You said that if you had used means to shape an intake and return you could have put in certain stoppings?—Yes.

166. Where would you have put those stoppings in?—If possible, in the main return at the back of the main road only, to close the fire off in its own section.

167. To keep the air off the fire?—Yes.

168. How near do you think the fire was to the main road when you saw it?—It is two pillar-lengths, and rather more, from the main road to where the fire was.

169. How near to the fire do you think you could have got with the apparatus to form an intake and return without bringing air to bear on the fire itself?—I think we could have got in to the first pillar. That is a chain off the main road, or rather more.

170. How long did it take to erect the fan?—Fourteen days, I think.

171. Was any part of the mine sealed up when this fan was erected?—Canvas stoppings were put up at each end of the tunnel.

172. Did the canvas stopping at this end remain up after the fan was put into operation?—No; the canvas stoppings were all taken away.

173. Do you think that any air that came through the mouth of the mine, going through where the fan was, got up to the place where the fire was burning?—We put the air on to back the smoke in order to get right up to the fire.

174. Do you think you could have done anything to remove that smoke without blowing it on the fire?—That is the only way you could do it—with ventilation. We led the ventilation with canvas.

175. Did the air go on to the fire?—Yes, by the fire. We blocked her off along the main road so as to force the air up into the back heading, to get up into the fire. That is where we cooled the roof.

176. You were there when the clay stopping was put in?—Yes. There was a pipe put in on each side of the stopping.

177. What sized pipe?—3 in. or 4 in.

178. They were not caulked up?—No.

179. Could any air get through those pipes?—Yes.

180. It was not an airtight stopping?—We were going to plug them.

181. Where would you have hung the fire-lamp to act as a furnace?—At the bridge end of the tunnel.

182. You would have preferred that to a fan—why?—For quickness. It was a means to try and get in quickly.

183. You said Mr. Mitchell was in charge in the absence of the Inspector of Mines and Mr. Dixon?—Yes.

184. Would you consider Mitchell to be a capable man to be in charge of a thing of this kind?—I would not say.

185. Do you think he was capable of being in charge?—I do not think so.

186. *Mr. Proud.*] Do you think the fire was only smouldering when you were out there on the Sunday night?—Yes, that is all.

187. There was no flame?—No. She was only smouldering until the air was put on to it.

188. *Mr. Corby.*] When the fan was put on first and you went in and saw the fire, before you put the brattice across the main road to concentrate the air on to the fire, could you not have put brattice up to cut off the fire altogether from the main road?—Yes.

189. Without difficulty?—There would not have been much difficulty then.

190. *Mr. Proud.*] Could you have forced air by a fan through the pipes?—The fan was drawing a regular current along the main road.

191. But could you not have put in a fan to force the air through pipes?—You could do that too.

192. *The Chairman.*] Could you have bratticed off the bords leading to the fire?—Yes.

193. But you could not have done it before the fan was working?—No. You wanted means to take away the smoke to get in there.

194. What would you say to the plan of going into the main drive, driving the air up the drive bord by bord, and bratticing off the fire side as you went along?—It was not done there.

195. Is that the way it should have been done?—Yes; that is the way I have seen it done before. They did not send a force of air to the fire.

196. Would you have gone up the bords?—You would have gone up as far as you could go. You could take portions of the air up and split it, and let the rest go. The last fire I was in we had to take all the air off.

JAMES HUNTER, Miner, examined.

1. *Mr. Corby.*] Have you been at many fires?—I have been at fires in three different collieries.

2. You were one of the principal men working at the Mokihinui Mine in trying to suppress the fire?—Yes; I was employed there.

3. *The Chairman.*] Were you at the Cardiff fire?—Not when the fire was discovered. I helped to build the dams.

4. *Mr. Corby.*] Do you think that if the same methods had been adopted at the Cardiff fire as were used at the Mokihinui fire it could have been suppressed so as not to damage the main road?—The Mokihinui fire was tackled with promptitude. A good number of men were put on and every care taken, and that is the reason why we were able to subdue it.

5. Did not the mine-manager take you into his confidence and arrange matters with you and the other men?—Yes. Mr. Alexander conferred with us on the matter as to the best methods to adopt to subdue the fire. We gave our opinion, and he acted accordingly.

6. You had been working in the Cardiff Mine up to the time it closed down?—Yes; from the time it commenced putting out coal until it stopped, with the exception of four months.

7. Do you think a large quantity of coal has been lost that could have been got out?—Yes; I consider there is a large quantity of coal unworked that could have been got out had it not been for the fire.

8. Could not the stopping you were at—the first clay stopping—have been put further in?—Yes, had it been put in with promptness.

9. Were you there at the time Mr. Martin brought the rope out?—Yes, I assisted him.

10. Was the fan working in the tunnel at that time?—Yes, certainly.

11. Keeping the air away from you?—Yes, keeping the fumes back. As far as my knowledge leads me to believe, I think the fan was working on that occasion. The rope was taken out previous to that.

12. You think that had promptness and despatch been used, with plenty of men and material, there is no doubt that the fire could have been confined to a smaller area, and that the tunnel could have been saved?—Well, I have no doubt about it.

13. *Mr. Harden.*] You say that Mr. Alexander, the mine-manager, conferred with you at Mokihinui at the time of the fire?—Yes.

14. With all the miners?—No; he conferred with a few of us.

15. Was there any other mine-manager out with him?—The manager at Cardiff, and Mr. Cochrane, the Inspector of Mines.

16. Were they along with him?—Yes, but not when he conferred with us. I believe they gave him advice.

17. At this time, at the commencement of the operations at Cardiff, they were directed by the Inspector of Mines and Mr. Dixon, the manager of the Granity Creek Mines, I believe?—Yes, I believe so.

18. Do you suggest that they were not experienced men?—I do not.

19. Did you expect them to confer with the miners as to the best means of putting out the fire?—I would not expect anything of the kind.

20. You say the first stopping could have been put further in if put in before: when do you suggest it should have been put in?—I was not present when Mr. Dixon was there; but I believe if promptness had been used when, say, the fan was erected, and was drawing volumes of air backwards, it could have been done with plenty of men at hand. My reason for stating so is that I saw the fire during the time we made a start to put in the first dam. I went along with Mr. Mitchell a certain distance in, probably 6 chains away from where the fire was. It was then on the main road.

21. How long did you stay there?—We simply went in, looked at it, and returned. We were satisfied with what we had seen, and returned.

22. How many men do you think should have been put on?—Probably twenty or thirty.

23. How many were put on to build the first stopping?—I do not know. I suppose the first afternoon there would be ten or twelve altogether of us.

24. What is the width of the place you stopped?—It was an ordinary 9 ft. drive of about uniform height, 7 ft. or 8 ft.

25. Will you explain how twenty men could work in there?—They could relieve one another.

26. How many of them could work at one time?—Probably four or six men would be bringing in the material, and three or four working at the construction of the work, and there would be an overseer, and probably two or three men outside.

27. How long did it take to construct the first dam?—I could not give you the time. We kept at it continuously until it was finished.

28. But about how long was it?—We were several days over it. I could not say how many working-hours we were, but I think we wrought continuously until it was constructed.

29. I am referring to the first stopping that Mr. Corby says should have been placed 8 or 10 chains further into the drive?—Yes.

30. Do you not think if you had been two or three days there you would have run a risk of the air reversing?—Yes, there was a risk of that.

31. Was there a time when it would have been safe to do so?—At the time they started to construct that dam there was only one danger I was afraid of.

32. What was that?—An explosion. Supposing we had been 10 or 12 chains further in, there could have been temporary stoppings put in. I was afraid only of a coal-dust explosion.

33. Do you think that on this occasion there was reason to be afraid of an explosion?—There was an explosion.

34. I suppose you will say "Yes" to that question?—Most decidedly, at that period of time.

35. *The Chairman.*] How far in from the approach to the tunnel do you suppose the explosion was?—I presume it was 30 or 35 chains.

36. *Mr. Harden.*] Would you have run more risk from an explosion if you had been 10 or 12 chains further in the tunnel?—Most decidedly, at that period of time.

37. Do you think it was a proper precaution to put the stopping in where it was put, and to avoid such a danger?—Well, I have no doubt it was a proper precaution in one sense. That was the only danger standing between the construction of the dam and the safety of the men.

38. Supposing you had put on twenty men, how much quicker would they have constructed the stopping than ten or twelve men?—It might have taken them nine hours; but it is difficult to say, because twenty men could not have worked in the place at one time.

39. Would not the danger of explosion be present in the case of twenty men just as much as in the case of ten men?—Yes; and it would apply equally well if the explosion occurred at the mouth of the mine as at 20 chains in.

40. *The Chairman.*] If you had been building the dam where would you have put it?—I would not say.

41. *Mr. Corby.*] What was the use of putting it there at all, the coal in that section was uncertain in the areas between the two dams?—I understood the dam was constructed for the purpose of flooding the mine.

42. *Mr. Lomas.*] Was there a temporary stopping put in the tunnel before the permanent stopping was put in?—Yes. There was canvas hung up about half-way in from the approach to the drive.

43. There was no temporary stopping put in beyond the stopping you put in?—There was none at all.

44. In your opinion, should there have been?—Yes; there should have been a good temporary stopping put in there.

45. If that had been done would it have saved the men from the black damp and smoke?—It would have been of great assistance in that direction.

46. *Mr. Corby.*] Were you at the building of the other dam?—Yes; I was at the building of the one against it, and the one at the bridge end of the tunnel.

47. Did you think that would hold water while it was building to flood the mine?—I did not think the dam was constructed strong enough, or that the material was good enough.

48. Who were you building the dam for?—I was employed by Mr. Mitchell.

49. Did you see any one give a plan of it to Mr. Mitchell, or whether he had any plan for doing it?—I saw and heard of no plan. I simply understood that the dam was constructed under the supervision of Mr. Mitchell.

50. And you have no idea whether Mr. Tennent or Mr. Hayes ever came there while you were building it?—Mr. Tennent was not on the ground when they were conferring about the second dam. He was there when we were cutting out the ground for the first one.

51. *Mr. Lomas.*] Were you there when the fan was erected?—No.

52. You know that the fan was erected?—Yes.

53. Was that the best method to adopt?—I believe that was the only method procurable at that time for bringing in ventilation so as to get access to the fire.

PETER MARTIN re-examined.

1. *Mr. Corby.*] Had you any antagonistic feeling towards Mr. Tennent at any time previous to being knocked off work in connection with the Cardiff Mine?—No.

2. Nor since?—I have no ill-feeling towards Mr. Tennent—nor to Mr. Mitchell—except as to what Mr. Tennent has said in his report to the Government.

3. Do you remember being at the Cardiff Mine when trying to caulk up the dam?—I do.
4. Do you remember my telling you that you might as well be doing anything as to try and make it watertight?—Yes.
5. Do you remember my saying that the plan of the dam was not sufficient to enable it to hold water with the pressure it was supposed to contend against?—Yes, words to that effect.
6. Do you remember me showing you what was the proper way to do it?—Yes.
7. Did you think at the time you commenced to build the dam you would be able to make it water tight?—No, it was impossible.
8. Do you know who supplied the plan of that dam?—There were no plans of that dam, to my knowledge.
9. On what conditions was it built?—There were no conditions.
10. You just got £20 to do as you liked?—That is about it.
11. Did Mr. Tennent have anything to do with instructing you?—Neither Mr. Tennent nor Mr. Hayes instructed me. Mr. Mitchell said he had all the power.
12. Did you see a report by Mr. Hayes in Wellington which stated that £50 would make a dam at both ends?—No. I saw some sort of a report asking the company for £20 to build that dam with.
13. That is the dam you built?—Yes.
14. You did not see any report which stated that for £20 they would be able to make a watertight dam?—No.
15. You say you got no authority, and had no knowledge as to what you were to put into the dam?—No.
16. What kind of clay did you put in?—We dug the clay out of the side of the mine. It was a sort of sticky, greasy clay. We could take it up in our hands and dab it in. It would not stand ramming because it was too soft.
17. Have you any idea of what it would cost to build the No. 3 dam?—I think, up to the time I left it would be about £50. But the dam was not commenced at all.
18. Did you think they were frightened to let you in for fear you would expose something?—That is my idea.
19. They did not want you to see what they were doing?—No. I spoke my opinion when the Minister of Mines was here. That is the reason I thought they did not want me to go into that dam.
20. *Mr. Harden.*] Did Mr. Mitchell tell you who had authorised him to build the dam?—Yes; Messrs. Hayes and Tennent.
21. Did he tell you who was to pay for it?—Yes.
22. And how much the price was?—Yes; £20.
23. Who was to pay for it?—The Cardiff Company.
24. Were you satisfied in your own mind that it was to hold water for the purpose of flooding the mine?—Not to flood the mine.
25. *The Chairman.*] Do you say it was to hold water?—Yes.
26. Well, was it to flood the mine?—It could not flood the mine.
27. *Mr. Harden.*] You say it was to hold water?—Yes.
28. For what purpose?—They might have an idea of filling the tunnel. I saw the material was not good enough to hold any pressure.
29. Who told you what material was required?—Mitchell.
30. Did he tell you the dimensions of the timber, and so on?—Yes.
31. And you and he proceeded to construct it?—Yes.
32. Before they constructed the dam below this one, did your dam ever hold sufficient water to fill the tunnel?—Yes, to fill the tunnel where the dam was.
33. How long did it hold water?—From the time we plugged it until the time Roland Broome went there—about two hours.
34. Was there any other clay obtainable?—Not there.
35. Mr. Hayes says in his report, "The clay obtainable is not at all good—it lacks body": do you know of any other clay in the vicinity that would have been suitable?—That clay would have been good enough if they had taken sufficient trouble with it. If they had dried it it would have done.
36. You tell the Commission that there was no plan or specification—that you simply built the dam to hold water, and that it held water for two hours?—Yes.
37. Do you think if Mitchell had properly treated the clay it would have held?—I could not swear that it would.
38. Do you think his method was wrong?—Yes.
39. Were you not co-contractor with him?—Yes.
40. Did you tell him that his method of treating the clay was improper?—No; I had nothing to do with the method of construction.
41. In order to make the dam hold water to allow you to fill the mouth of the tunnel, how would you have treated the clay?—Just as we did it. When the pressure came she was bound to leak.
42. But to enable it to stand greater pressure how would you have treated it?—By putting better material in.
43. How would you have treated the clay?—Dried it.
44. Sun-dried or baked it?—I would have considered the means as to how to do that.
45. Had you done that would the dam have stood much greater pressure?—In my opinion it would.

46. As the dam was constructed by you, did you expect it to withstand greater pressure of water than would be required to fill the mouth of the tunnel immediately behind the dam?—The question never gave me any thought. I never considered anything about the pressure she should stand.

47. *Mr. Cottrell.*] In reference to the taking of this contract, were all the negotiations made by Mitchell?—Yes, so far as how to complete the contract. In the money matters we were sharing.

48. Who gave all the directions in the construction of the dam?—Mitchell gave them to the workmen and to myself.

49. Although you shared the profits, were you not simply in the position of a workman?—Yes.

50. Mr. Hayes, in his report to the department, says in reference to the contract, "Instead of placing this in Mitchell's hands, it appears the company let the work by contract to Peter Martin, a carpenter at the colliery." You say that that is all wrong?—Yes.

51. You relied upon your partner for all instructions?—Yes.

52. And you took no active part in the selection of the clay or anything else?—No.

53. Did Roland Broome ever see you about it?—Yes; about the money part of it, after he got word about it from Mr. Bayfeild, the agent. This dam was let to Mitchell two or three days previously, before Roland Broome knew anything about the money.

54. *The Chairman.*] How long had Mitchell had the job before you knew you were going to share with him?—He got it before dinner, and I got it that night about 6 o'clock.

55. Had you shared any jobs before with Mitchell?—Yes.

56. How many?—One or two jobs from the company, and we had been timbering together two or three times.

57. Was he not with you in the machinery job?—No. We tendered together once, but it was not let.

58. Did he not work with you in it?—No.

59. *Mr. Cottrell.*] The anchorage of the bridge is mentioned in Mr. Hayes's report: I thought you put that in some time previously?—I am the builder of the bridge.

60. In answer to question No. 200 in the evidence taken before the Goldfields and Mines Committee last session of Parliament, Mr. Hayes says, "The ground was slipping, and the anchorages (of the bridge) were weakening"?—When I saw that report about the bridge I went out to see it, thinking something might have happened to it in consequence of the fire.

61. You went to see if the anchorage was all right?—Yes.

62. What state did you find it in?—In the same condition as when I left it in 1897.

63. Do you think there was any soft coal where the anchorage was put in?—No, I deny that. It was solid rock.

64. Do you fear that these reports have done you any harm?—I do. I feel that so long as those reports stand against me I dare not go to any other colliery to ask for a billet as a colliery carpenter.

65. *Mr. Corby.*] Mr. Hayes also complains about this tunnel being broken up: do you remember yourself and Mr. Mitchell drawing the water out through the pipe some time previous to the writing of the letter?—We did.

66. That was after the dam was supposed to be full?—Yes.

67. That is what the vigilance committee referred to in the letter?—Yes.

68. You assisted Mr. Mitchell to draw the water?—Yes. We let the water go several times. It was nothing uncommon.

69. *Mr. Lomas.*] How many props were set in the centre of the road to support the dam you built by contract?—Two.

70. How far were they from the centre of the road?—They were supposed to be 2 ft. apart. There was the wall, then a prop, then an opening, and then another prop. They were let into the bottom and wedged fast into the roof.

71. Did you go into the dam after it burst through, or notice whether the props ever moved?—I never went in to see them.

72. *Mr. Proud.*] What experience have you had in the construction of dams?—A good deal. I built a dam in Humphrey's Gully fifteen years ago—a large dam. I have built dams for sawmill-sites at a place called Back Creek, at Hokitika, and I think I know how to build them.

73. *Mr. Lomas.*] How would you construct a log dam?—I put my timber in not across the face, but 6 ft. or 8 ft. long, and then plug them.

74. Without any clay at all?—Without clay, but to let a little sawdust in.

75. You mean that the dam would be 6 ft. of solid timber, well plugged?—Yes, centre-plugged.

76. *Mr. Proud.*] You have never seen a brick dam put in?—No.

77. *Mr. Corby.*] Did you go in and cut the rope to bring it out of the mine on the night when they put up the first stopping?—Yes; that was on the 5th. The first stopping was not up, but they were working at the foundation.

78. Did you experience much difficulty in getting up?—No.

79. Did you get up far enough to see the fire?—No.

80. Did it take long to get the rope?—No.

81. Would you have been afraid to remain an hour there?—I would not have been afraid to stop there all night in the state of the atmosphere then.

82. How long do you think it would have taken four men to put a temporary stopping of brattice up?—Four men should do it, if they had their appliances with them, in ten minutes.

83. Do you think that stopping could have been as easily put in where we say it was wanted, in the plan, as where it is now?—Yes.

SATURDAY, 26TH JANUARY, 1901.

JOHN CLARK, Miner, examined.

1. *Mr. Corby.*] Were you working in the Cardiff Mine some time previous to it closing down?—Yes; I think, about four years altogether.

2. Were you there with Mr. Dixon at the time he located the seat of the fire?—Yes.

3. Did you hear any remarks made by any of the men about the mode of procedure he was taking?—Not that I am aware of. On the Sunday morning, 28th January, 1900, I was at Mr. Mitchell's when the boy came down and told Mr. Mitchell that the Cardiff Mine was on fire and that he was wanted there. Mr. Mitchell asked me to go with him, but I said I could not, as I had the Sunday school to attend to. He then sent for Wilkinson, and went away. I heard nothing about the fire until the Tuesday after the fire. He asked me up on the following Monday evening. When I got up to the office at 10 o'clock two men named Tate and McGill were told off to fix the stoppings at this end of the mouth of the tunnel. The rest of us were taken over to the bridge side of the tunnel. Some of the men were told off to excavate for the fan at the mouth of the tunnel at the bridge side. The rest of us were sent to take down the fan and help bring it down with Mumm. On the following day, when we had part of the fan in the mouth of the bridge tunnel, Mitchell was sitting there, and said all the men were knocked out who were excavating for the fan. I asked Mitchell if the stopping on that side was in solid ground. He said it was put in according to instruction from Mr. Dixon, if my memory serves me right. The terminus sills being there, it was excavated below. I suggested that with the smoke or damp coming out of this place it would be advisable to put the stopping further in to let the men get on with their work. Mitchell said he had got no instructions from the authorities to put it further in, but in the afternoon he asked Cunliffe, McIndoe, and myself to put the stopping further in the mouth of the tunnel on the bridge side. In the forenoon the tunnel of the bridge side was drawing out to the entrance of the mine. The men went on with the work.

4. Did the men put the stopping further in?—Yes; Cunliffe, McIndoe, and myself. After we finished that stopping we were told to put a stopping on the left-hand side of the bridge, where the fan used to sit, and Mitchell told me to go home and come out again next morning at 8 o'clock. The next day (Friday) Mitchell asked me if I would get the lamps ready, as Mr. Dixon was coming, and that the fan would be ready at 10 o'clock on the Friday morning. When Mr. Dixon came up at about 10 o'clock the fan was hardly ready. He telephoned asking when Mr. Mumm would be ready, and it must have been about half-past 10 when Mumm said it was ready. Mr. Dixon told us then to take down the stoppings in the mouth of the tunnel. The fan was then set in motion. Mr. Dixon with his instrument measured the draught of air that was going into the tunnel. In the meantime he said, "You sit here," and I think we sat for about five or ten minutes. Mr. McIndoe was sent away to close in the shaft. We then proceeded into the mine—Mr. Dixon, Mitchell, Roland Broome, John Smith, myself, and several others. We went cautiously along until we got past the back heading of the long jig. We were about half a chain past that, if I can recollect correctly. Then we retraced our steps, having sighted the fire in the back heading of the long jig. Mr. Dixon gave instructions for a stopping to be put across the main road. We went up that back heading until we got to the first stenton. Mr. Dixon gave me instructions to put a stopping on the right-hand side of the back heading of the long jig in some little shaft there. In the meantime Mr. Dixon and Mr. Mitchell went through this stenton on the left-hand side towards the long jig. They came back and instructed us to put what I would call an apron or sheet of brattice along the roof. We then adjourned to 12 o'clock. We went in again at half-past 12 or a quarter to 1, and Mr. Dixon gave us instructions to put up canvas that would take us past the fire—past this apron affair that was put up. We got, I think, about a chain. I was never up that heading before. Mr. Dixon was sitting ahead of me, and I was pulling a piece of canvas, when he said, "Don't get ahead of me." Then a fall took place, I think, by the look of the fire. We took down the brattice from the side, and adjourned to the rope-road for a spell. When the fall took place a flame of fire came down the heading for a bit, so we adjourned for the time being. We went back again, and Mr. Dixon was standing looking at the stopping we had, and said, "So near and yet so far," and then he gave us instructions to seal the stopping up and bring all the tools out to the rope-road. He gave us orders to put canvas half-way up, so that the draught of air would go through the tunnel. We came out to the mouth of the tunnel, and put in a stopping there. That was up to 5 o'clock on Friday evening. I asked Mr. Mitchell if we were to go to-morrow, and he said No, there was nothing to be done until Monday, until Mr. Tennent came. When Mr. Tennent came on the Monday morning we got the lamps ready, took down the stopping, and made another attempt to get in. We got along the rope-road, I do not know how many chains, but a good bit from where we were on Friday, and we sighted the fire down on the rope-road. Mr. Tennent and Mr. Mitchell went in a piece, and left us standing behind. I do not know what passed then. They returned and gave us instructions to shovel out some slack from behind some pigsties, which were beginning to get high. Then we went outside, and I think we got instructions to put in a stopping.

5. *The Chairman.*] Where?—In the stone drive at the mouth of the tunnel. I think there were three shifts on the stopping. There were four men on the shift I was on. I went home at 4 o'clock, and came out next morning at 8, but Mr. Mitchell told me to come at 9. There were four men still at this stopping, but they were pretty well exhausted. I was cleaning the lamps when Mr. Tennent asked me if I would go in and batter up some of the planks with clay, and give the rest of the men a spell. I did so, and stopped there until I was nearly exhausted, and then came out. Mr. Tennent sent some one in to see if I had been knocked over. I think it took four or five of us seven hours to put on three or four planks to finish that stopping for that day. Mr. Tennent then told us to go home, as we had done enough for one day. When we came out

again we were just putting in the single stopping—I think we put in a 3 ft. stopping between the two planks. We finished that, and next day we went over to the shaft to fill it in. We finished the shaft, and then were dispensed with. I think, about three or four weeks afterwards, Mr. Mitchell asked me if I would go in and help put in a dam, as they were going to put a dam in in front of the stopping we put in. I went and finished the stopping, and I have done no more at the Cardiff since.

6. How long were you working at the dam?—About a fortnight or ten days. I got £5 from Mr. Mitchell for my work.

7. *Mr. Corby.*] Do you think that Mr. Dixon used the best means for extinguishing the fire?—I do not. I suppose he used the means he thought the best.

8. Would you have acted as he did if you had had command of the work?—I do not cast blame upon Mr. Dixon, but I would have taken in a mid-wall. First of all, I would have put in a good tight stopping on the bridge side of the tunnel. After that I would have put in a tight mid-wall or brattice in the centre of the road at the mouth of the tunnel, taking it in with me, and then have put in a good tight stopping in all the bords or holes along the tunnel, and so have got the air in as small a space as I could have got it as I went along to inspect the old workings, which I would have sealed off as I went in. If I could not have carried enough air with me to have kept the men alive I should have tried a small air-fan to locate the fire, and then have sealed it off.

9. Do you think that, if there had been a good permanent stopping put in where Mitchell erected the temporary one on the first occasion, the fire would have been now raging along the terraces?—That is a point I am not quite clear about.

10. Supposing they had put in a permanent stopping at the bridge and gone up putting brattice in with a return airway?—When I was in there the fan was working. There was a fall or explosion which took place in the night-time.

11. You were there at the time the fire was first seen and got in about a chain: what did it look like?—It did not seem to be much of a fire. It just looked red, and there was no blaze in it.

12. You were in front of the other men, were you not?—I was in front all the time.

13. You say that they got instructions to seal the two ends of the tunnel and then to put the fan up?—The fan was up when I went in.

14. How were the men knocked out?—In the morning the mouth of the tunnel over the bridge was drawing out, and the smoke was knocking the men down where they put the stopping in.

15. Who instructed the stopping to be put in?—I do not know. They got instructions not to go too far in.

16. Do you think it was right to leave the mine from the Friday until the following Monday without trying to seal it off?—I think something could have been done; but I understood that Mr. Dixon was just instructed to go and locate the fire, from what he said to me.

17. Was there a man named William Cunliffe with you?—Yes.

18. Was he a good, competent man?—Yes; he was a competent miner so far as I could say.

19. Do you know that Mr. Dixon instructed him to keep back when you came near the fire?—I do not know that he was particularly instructed; but four or five men went in, and they were told to keep in line for fear anything happened. Cunliffe had been brought up to mining all his lifetime, and had been in gassy mines. I think he was a healthier man than myself.

20. Did you hear any one say anything about the action taken to put the fire out, or do you know whether Mr. Dixon heard that Cunliffe had make remarks?—I know that Mr. Dixon came up and asked me if Cunliffe was there at the time. He said that Cunliffe had stated that he (Mr. Dixon) had put the fan on to blow the fire up.

21. Cunliffe did not go back again?—No.

22. You knew a man named William Keal?—Yes.

23. Do you know who was the first to report the fire?—I heard that he had been in as far as the long jig, but I could not say whether that was correct or not.

24. *Mr. Harden.*] When you put the stopping in a little further than the first one, you suggested that you could have put it in further still?—Yes; that is, over on the bridge side. We put it in as far as we could, because we had to go out for breath every ten minutes.

25. Did you work on the stoppings on this side?—Yes.

26. Do you know the first permanent stopping put up on this side?—Yes.

27. Do you think it could have been put 8 or 10 chains further in?—When we were putting in the stopping we were being knocked over.

28. On account of the air?—Yes.

29. Would the air have been worse if you had gone further in?—The air might not have been worse, but it would have been more difficult to get out.

30. When you went in later you said that Mr. Dixon told you to put up what you called an apron and others called an overcast brattice?—Yes.

31. Did Mr. Dixon tell you what it was for?—No; but I thought it was to cool the roof.

32. Did you at the time think it was a reasonable thing to do?—I helped to put it up.

33. Did you think at that time it was an improper thing to do?—If we were to get further up to the fire something of the sort had to be done.

34. Without this overcast brattice could you have got further up?—I suppose we might have got a little further, but not much, as the smoke was coming down pretty thick.

35. How much further do you think you could have got up?—It all depends upon how strong a man is to stand the smoke.

36. From this point could you see the fire smouldering?—Yes; we stood and looked at it where this overcast brattice was. We were half a chain further than that. We could see the fire from the overcast, and went half a chain further than that.

37. Why did you not go further?—Mr. Dixon would not allow us. He said he was the first man there, and the last man to leave. The smoke was then over our heads. We could not put our heads up among the smoke, or it would have knocked us down.

38. When you went back you say that part of the roof had fallen at the fire?—We retired when the flames came into the drive. We were standing at the apron looking at the fire.

39. You retired to the apron, and while you were there resting the fall came?—Yes; we had the brattice down when the fire occurred.

40. When you finished on the Friday afternoon Mr. Dixon had left, and Mr. Tennent was not there, was he?—Mr. Tennent did not come until the Monday morning's train arrived.

41. When you left the mine on the Friday was the mine sealed up awaiting Mr. Tennent's arrival?—There were brattice stoppings put in on each side of the tunnel, and the one in the back heading of the long jig was rolled up to let in the current going through.

42. What was the effect of the brattice at each end: what were the stoppings put up there for?—I suppose it was to block off the air from going in.

43. Were those two brattices secure when you left the mine on Friday?—Yes; McIndoe and I finished it.

44. Have you had any experience of fires in mines?—No; this was the first fire I had ever been at. I have been in mines that were on fire, but never worked at them.

45. When did you form an opinion of what was the proper thing to do: since the fire?—I had my opinion all the time. I do not know whether I suggested to Mitchell to bring in a mid-wall, so that we should not have so much damp.

46. You did not think of that when you went in with Mr. Dixon?—I had an idea that I would do it that way if I had no other means.

47. Having had no experience, were you quite satisfied to bow to Mr. Dixon's opinion?—Not having had any experience, I gave credit to the older man for knowing what he was doing, and being a mine-manager I thought he would have more knowledge about ventilation.

48. *Mr. Corby.*] You say it was very difficult to get stoppings in through being knocked over: was the fan erected?—The fan had no effect, because there was a big fall in the tunnel.

49. Was there any brattice ahead of you?—Not that I am aware of.

50. Could not the men stand to put in a brattice stopping quickly ahead of you, to keep back the volume of smoke and black damp?—That might have been done.

51. It was not done?—Not that I am aware of.

52. *The Chairman.*] There was a brattice ahead of you, but it was rolled up?—Yes.

53. Why was it rolled up?—It was to prevent the air going up the back heading.

54. *Mr. Corby.*] I am not speaking of that place. Where you were at the main entrance, if a brattice had been put up would it not have stopped the smoke going from you?—Yes, but it was going through the bords and clay stoppings in front of us.

55. With regard to going up to the fire and putting in the overcast brattice, what good could have been effected by your going up to the fire?—We were there as workmen, and Mr. Dixon did not tell us what he was going to do.

56. Do you think any good could have come from going up to the fire?—I suppose he thought we could shovel it out.

57. Do you think that with a hose and pump you could have forced the water that half-chain?—Yes, if I had been sure that was all the fire. I was not in a position to see, because Mr. Dixon was away on the left-hand side. If that was all the fire that we saw I think it could have been taken out.

58. When the fan was erecting, before you attempted to go up the heading to the fire, would you not have been able to put brattice in by having the main tunnel free?—We went up about half a chain.

59. Could you not have confined the fire to the area it was then located in?—I believe that stopping could have been put in. If I had been in charge I might have done that. That is what I said, by taking in brattice I would have sealed off all the old workings as I went on.

60. *Mr. Cottrell.*] Who gave you orders about the dam?—Mr. Mitchell.

61. Was Mr. Martin there too?—Yes.

62. Did he give you any orders?—No.

63. *Mr. Lomas.*] When you and Mr. Dixon went into the mine, where did you put your first stopping—on which side of the bord?—On the right-hand side.

64. Across the main heading?—No; we went into the main heading. On the same side of the back heading there was a shaft and a bord. Mr. Dixon gave me instructions to put in a tight stopping.

65. That was the first stopping?—No; the first stopping was on the main road.

66. On which side of the bord did you put the stopping up?—I entered from the No. 1 drive, and got to the bord where the fire was. I put up a tight brattice stopping just beyond the bottom of the bord. We went up this bord about a pillar-length, and put a stopping up on the right-hand side. It was just a screen across.

67. Was it ordinary brattice?—It was not an overcast brattice.

68. It was simply an ordinary brattice?—It was a half-stopping across the drive, the air travelling along the top.

69. You say you got within a chain of the fire: was the fire in the back heading or in the bord?—It was in the heading, and the bords were to the right and left.

70. Which side of the back heading was it: was it between where you put the stopping, next to the shaft?—No; it was up the heading a bit. The fire was ahead of that.

71. The air did not have to go over the heading to get to the shaft?—No.

72. You said that if you had been dealing with this fire you would have put in brattice in the

main road, and put in a fan: where would you have put the fan?—I would just have taken in enough air to supply the men with.

73. Do you think that if you had done that you could have put a stopping or a dam in any part of the main heading you chose?—Yes, I think I could have put it anywhere.

74. Do you know anything about this North block of coal spoken of?—No.

75. You do not know whether that is on fire or not?—I could not say.

76. *Mr. Proud.*] Had you a good supply of brattice-cloth?—Yes, as much as we wanted.

77. And if you had had high-pressure water do you think you could have extinguished the fire?—Yes, if that was all the fire we saw.

JOHN TRESSMAN, Miner, re-examined.

1. *Mr. Corby.*] What have you to say further with regard to the Cardiff Mine?—I have not been near the mine since I was discharged in March, 1899, but I think proper means have not been adopted to put the fire out.

2. How long have you worked as a coal-miner?—Forty-two years.

3. How long had you worked in the Cardiff Mine?—Six years.

4. Do you think that the best means were not adopted to extinguish the fire?—I do not.

5. Why do you entertain that opinion?—I formed my opinion from seeing the report of Mr. Dixon and the departmental reports, and through being well acquainted with the underground workings of the mine. The plans do not show the nature of the Hector block as they should do. In the Hector block, between the long jig (1 and 2), the roof was resting on pigsties, the pillars being very badly robbed. The pigsties were holding up 10 ft. of good hard coal.

6. What means would you have adopted to suppress the fire?—[Witness produced a sketch-plan, and explained his method for stopping the fire.]

CHARLES JOHN CURTIS, Miner, examined.

1. *Mr. Corby.*] You were working with Mr. Dixon in the Cardiff Mine on the day when the fire was located?—Yes.

2. You were up the drive with Mr. Dixon when he saw the fire first?—Yes.

3. What did it look like?—Like a fire you would see burning in a grate.

4. Was it of any extent?—It looked as if there had been a fall which had half-smothered it.

5. It was no wider or bigger than a fire in an ordinary grate?—No.

6. Did you hear that previous to this Mr. Keal had seen it?—Yes.

7. Did he tell you he had seen it exactly where you afterwards saw it?—Yes.

8. That was before you saw the fire?—Yes.

9. Did you hear Cunliffe make any remarks as to the way the work was carried on?—According to what he said, he did not approve of the ideas held. He said he thought putting on the fan would only make the fire worse.

10. Cunliffe did not go in front of the fire, so far as you are aware?—No.

11. Do you know why he did not go?—I could not say.

12. Did you hear Mr. Dixon tell him to remain behind?—He told him to stop there on the curve facing the fire.

13. Was Cunliffe an experienced miner?—Yes.

14. Was he considered a healthy man, able to stand as well as any one gases and bad air?—Yes.

15. Did you hear Mr. Dixon say anything that day regarding the fire?—When he came out after the brattice was put up he said something about "So near and yet so far." That is all I heard him say.

16. *Mr. Harden.*] Why did Mr. Dixon tell Cunliffe to stay at the curve?—I could not tell you.

17. Had Mr. Dixon a line of communication from the pit-mouth to where he went to locate the fire?—He had men standing along to pass on communications.

18. Was Cunliffe one of those men?—I do not think so.

19. Was he capable of being one?—Yes.

20. *The Chairman.*] Was Cunliffe employed there?—Yes.

21. *Mr. Corby.*] Cunliffe made the remark he did before Mr. Dixon turned him back?—Yes.

22. Cunliffe did not go to work there the next day?—He came, but went back again.

JOHN BAIN, Miner, examined.

1. *Mr. Corby.*] You were one of the men who were in the Cardiff Mine with Mr. Dixon when the fire was located?—Yes.

2. Were you there when Mr. Dixon first saw the fire?—Yes.

3. What did it look like?—It was not very big when we first saw it; there were no flames.

4. Did you see Mr. Cunliffe there?—Yes.

5. Did you hear him say anything with regard to the fire?—No.

6. Did you have a talk with Mr. Keal about the fire?—No.

7. What part did you take when you were working at the fire?—I think I was carrying tacks at the time.

8. What side of the bord did you put the brattice across the main road?—On the opposite side of the heading where the fire was.

9. What was the object of putting it there?—I do not know that.

10. Were you assisting to put in the first stopping after the fire was located?—Yes.

11. Had you the fan working there when you were putting the first stopping in?—I could not say. If it was it was not drawing much air, as we were being knocked down.

12. Did you see any brattice ahead of you in the tunnel to keep back the smoke and damp?—No; the only brattice I saw was up the main road where the fire was.

13. Did you hear Mr. Dixon make any remark regarding the fire?—No.

JAMES QUINN, Miner, examined.

1. *Mr. Corby.*] You are a practical miner?—Yes.

2. You were working in the Cardiff Mine up to the time it closed down?—Yes, up to a week or so before it closed.

3. How many tons of coal do you estimate were lost through the fire on the right-hand side of the long jig, where the fire was located?—There were no pillars taken out on the right-hand side, only up to the top of the little jig. It was contiguous to the outcrop. Chasm Creek might be 4 chains beyond this little jig.

4. How much coal would be lost there?—That would comprehend from the bottom of the long jig to the little jig. The coal would be in some places 26 ft. thick.

5. Approximately how many tons?—40,000 or 50,000 tons. It is mostly soft coal and suited for steam purposes.

6. Was it good steam-coal?—Yes; we were sent there occasionally to get it for steam purposes. It was not supposed to be so good as the hard coal.

7. Do you think the fire was due to spontaneous combustion or to incendiarism?—From inference and opinion—for I know it so well—I think it must have been the work of an incendiary.

8. Will you give us your reasons for that opinion?—The place was just a narrow drive 9 ft. by 7 ft., all cleaned up. It would be almost impossible, in my opinion, for an accumulation of fine dust sufficient to cause spontaneons combustion or involuntary fire.

9. You have heard about the dam put in: do you think it was properly constructed to hold water?—As far as my opinion goes, it would neither hold water nor resist pressure in the way it was constructed. Being a stonemason by trade, I know how it should have been constructed to resist pressure. We know very well that a flat surface will resist only so-much.

10. *Mr. Lomas.*] Do you say there was no loose coal whatever in this particular part?—Yes; and I believe I abstracted more pillars and tops than any one else in it.

11. How long after you had been in this particular place was it when the fire was discovered?—It might be four months or more; I could not be positive.

12. From your knowledge of the ground, would you consider it a place where coal was likely to fall from the roof or be crushed off the pillar?—The heading was narrow, and the stenton from the main jig across was also narrow.

13. Would there be any likelihood of coal falling or being crushed off the pillar so as to cause an accumulation of loose coal?—There is always a certain amount of crushing-force where you take out anything.

14. What size were the pillars?—They were supposed to be chain centres. They might be made thinner on one side than on another.

15. From your knowledge generally of the pillars in the mine, would you say that a pillar of that size, with only a 9 ft. road off it, would be likely to give way?—Not much. There are always bits in the corners that are liable to fall off.

16. You have some idea of the nature of the roof, and can say whether it was likely to fall: was it good or indifferent?—It was mushy coal.

17. Was it timbered?—Yes, there were props in it. The place was well timbered.

18. You have heard the different statements as to the methods used to extinguish the fire: have you any suggestions to offer about any method you would have used?—I cannot say what I would have done had I been there, but I certainly would not have let the work stop until something had been done.

19. As a practical miner, do you think the best means to extinguish the fire were adopted?—I do not.

20. Do you think drawing the air over the fire was the best means?—No. The fan, I believe, was necessary to make the smoke travel one way. It was also necessary to have all the bords stopped off on the right-hand or Chasm Creek side, so as to have only enough air to enable the men to work, but not to drive the air over the fire.

21. *Mr. Proud.*] Would you have put in a circular dam?—Yes, inverted inwards, so that it first struck the wall. Wood or anything else would have done, so that every cut would find the centre.

22. You say all the smudge was taken out in the soft coal?—I saw none in the particular place I spoke of.

JOHN MILLIGAN, Miner, examined.

1. *Mr. Corby.*] You had been working at the Cardiff Mine a considerable time before it closed down?—Yes; I was check weigher for the miners.

2. Do you know William Keal?—Yes. He had worked one shift at the fire, and was working at a co-operative contract when I was talking to him about the fire. He told me the fire was of no great extent. I asked him if it was blazing, and he said, "No; you could almost take it up with your hat." That was on the Monday or Tuesday after the fire was discovered. I took no particular notice of the remark at the time. I asked him if he had reported that, and he said "Yes," and that he was almost going to get gaol because he had broken the law by going into the mine by himself. He said the fire was in the back heading of the long jig.

3. Is there anything else you would like to say?—I took very little interest in the fire, and cannot say that I know anything about the subject at all. I was not working there.

4. *The Chairman.*] You are a coal-miner?—Yes; and have been working off and on at it since 1886.

5. *Mr. Harden.*] Did Keal tell you to whom he reported that?—No.

6. *The Chairman.*] Did Keal say he had been in the mine on the Sunday?—Yes.

7. And had located the fire on the Sunday?—Yes.

ROBERT TENNENT re-examined.

1. *Mr. Harden.*] You are Inspector of Mines for this district?—Yes.

2. Did you frequently inspect the Cardiff Mine while it was working?—Yes; during intervals of two months, not more.

3. Was there a ventilating-fan used there?—The fan was on the ground when I took charge, but not built.

4. Did you ever receive any complaints as to the air or want of ventilation?—No complaint was ever sent to me.

5. *The Chairman.*] When did you take charge of the district?—On the 1st July, 1897.

6. When was the fan erected?—It might have been three months afterwards.

7. How often did you inspect the mine after the 1st July?—I was in the mine on the 1st July. It was the first mine I came to after my appointment.

8. How did you find the ventilation on the 1st July?—It was not very good—it was simply natural. It seemed to be smoky in the old workings.

9. Did you complain of the ventilation, or report on it?—I believe I did to the Under-Secretary of the Mines Department.

10. How did you report it?—That it was not satisfactory.

11. *Mr. Harden.*] Did you make any recommendation?—The fan was on the ground ready to be built, and it was put up inside of three months.

12. How did you find the ventilation after the erection of the fan?—There was a good deal of work to be done in restopping the mine. All the stoppings were of first-class flooring-boards. We could get a regular system of ventilation from the main entrance. The measurements of the fan averaged 24,000 to 28,000 cubic feet per minute. I never found it below 24,000 ft. by aneroid thermometer.

13. How was the ventilation in the dip working—that is, the one of which they were complaining?—It was good at the time of the complaint.

14. *The Chairman.*] Did you not say you knew of no complaints?—That was 28th December, 1898—the complaint of the miners to the Under-Secretary.

15. *Mr. Harden.*] How long had the east-dip workings been open then?—They did not last very long. It was blocked in every way through faults.

16. It was abandoned?—Yes. Bits of coal were picked out of it, and it was then abandoned.

17. Did you ever advise the manager of your intended visits?—Never. I never advised the colliery-managers during my term of office of my intended visits. I just go to the mine and walk into it, whether the manager is there or not.

18. How was the ground in this mine opened up?—The old mine was opened up from the main haulage-road.

19. Did you tell Mr. Broome that Beirne was not a safe man?—No.

20. Did you hear it alleged or reported that you had said so?—Yes.

21. When?—At the time, or some days after.

22. At what time?—At the time Beirne had got notice—a few days after.

23. From whom did you hear it?—I heard Mr. Broome reading the notice in the Arbitration Court. That was the first time I heard of it.

24. Did you speak to Mr. Broome about it?—Yes, very severely.

25. What did Mr. Broome have to say about the statement he made in his letter to Beirne?—He admitted that he had done wrong. He had taken it upon himself, thinking it would be something in the face of the union—an excuse.

26. Practically making evidence in his favour in case Beirne brought him before the Arbitration Court?—That was the idea.

27. Did you have any discussion with Broome about Beirne prior to this?—No.

28. What did you advise him to do afterwards?—I advised him to reinstate Beirne in his work.

29. You afterwards received the following letter from Mr. Broome: "Dear Sir,—*Re* discharge of Francis Beirne from the employ of the Cardiff Company, I hereby emphatically declare that you did not use your influence in any way to get Beirne discharged; and, further, that when you heard of his dismissal you urged his reinstatement.—G. H. BROOME, Kaitangata, 15th November, 1900"?—Yes.

30. The next complaint against you is as to the taking-out of coal in the little dip and leaving an unnecessary quantity behind: what have you to say to that?—It was on the back heading of the east dip that Beirne was working. [Plan referred to.] The work being done was the stripping of available coal from the fault side of the heading. Beirne was stripping the coal adjacent to the fault. After making a very minute examination of the working with Mr. Broome we considered the place absolutely safe. We then returned to the men at the dip-top. Mr. Broome told them that if they were not satisfied to work they were to go home. I said he should talk to the men kindly, and get them to go back to their work. One of the men asked me if I would go back. I said I did not think it would be any good going back, as I would only find the place as I had left. I was going up to the Bridge section and would be back in an hour, and would then visit it. I did go back, and found everything right: the men at work, and the conditions of the place as I had reported—safe.

31. Were you quite satisfied?—Yes. I would not have allowed the men to go into it if it had been otherwise.

32. When did you first hear that there was a fire in the Cardiff Mine?—At noon on Sunday, 28th January.

33. Where were you?—At home in Westport.

34. When did you go out?—Direct that afternoon, by railway-tricycle.

35. At what time did you arrive at the mine?—It would be 7 o'clock when I got to Corby's and had a cup of tea, and about 8 o'clock when I and Mitchell arrived at the mine.

36. *Mr. Cottrell.*] You say you repeatedly inspected the mine from July, 1897, up to the time the mine closed down?—Yes.

37. Is it not a fact there were sometimes three or four months of an interval between your visits?—The report-books would give the dates. I always tried to make my visits every two months. I have no fixed time to visit mines, but have to go as opportunity serves. I cannot possibly make a time.

38. Do you remember Mr. Lomas being an underviewer in the Dip section?—Yes; I met him occasionally.

39. Was that at the time the fan was up?—I could not say definitely.

40. Are you aware that when he first went into that section the ventilation was very bad?—It was not good until after the stoppings were made perfect. That was some little time after the ventilation-fan was started.

41. Are you aware that the ventilation was bad after Mr. Lomas left that section?—I do not remember. I did not think there would be much work done in it. It would be pretty well exhausted then.

42. You do not think the ventilation was bad after Mr. Lomas left?—I do not think it was.

43. You have heard the evidence given by different miners that they had an idea of when you were going into the mine?—Yes; that was only guesswork.

44. Is it not a fact that you told the agent in town when you contemplated visiting the mine?—Never once—on oath.

45. And never let Mr. Broome know in any way?—I never notified or advised a manager during my term of service. My visits were not regular. I tried to go according to my work.

46. You say that you did not know Beirne before the time of the Arbitration Court?—No. The first time was when I knew of that letter.

47. Why did you divulge the contents of that letter to Mr. Bayfeild and Mr. Broome?—I got the letter from the department to reply to. I cannot give any reasons why I showed it. [Letter of Tressman and others, 25th February, 1899, referred to.] I had not shown the letter to any one before I met Mr. Bayfeild in the Cardiff office at Seddonville.

48. You showed Mr. Bayfeild and Mr. Broome the letter?—I just simply asked Mr. Broome if he would show me the man in the mine.

49. Did you discuss it with them?—No.

50. Did you not ask them if it contained their signatures?—I simply asked if those were their signatures.

51. Mr. Broome showed you the men?—Yes. I met the men at their working-faces. Mr. Pratt admitted his signature. Mr. Beirne did not.

52. Do you remember Mr. Broome going up in a threatening attitude to the men?—Mr. Broome spoke roughly to them.

53. Did he raise his hand in a threatening manner?—I could not say that.

54. *The Chairman.*] What did it matter to you whether it was their signature or not?—I thought it was very aggravating. I know it was an error of judgment. I was annoyed about it. Beirne said he had made a complaint to the department.

55. After that Mr. Broome tried to get an admission from him?—Yes.

56. He was forcible in his demand?—He was a little rough.

57. Did not Mr. Bayfeild state, "Why don't you admit your signature at once"?—From memory I could not say that Mr. Bayfeild interfered in any way.

58. Did you not feel at that time that you were divulging the contents of the letter contrary to the intentions of the Act?—I afterwards realised that I had done wrong.

59. You learned a few days after this that Beirne had been dismissed?—I learned that in the Arbitration Court.

60. Why did you not take some steps then and there to deny your connection with it?—I did so; I wrote a letter to that effect.

61. Have you a copy of the letter?—No. I wrote to the union and also to Mr. Hannan in Greymouth. It seemed that Mr. Beirne intended to prosecute me privately, and I got a letter from Mr. Hannan, and replied emphatically denying that I had had anything to do with Beirne's dismissal. I have copies of my letters in my letter-book. As a result of the letter containing this complaint, Mr. Marshall sent in his resignation and left. And to show that there was no ill-feeling against Mr. Marshall in the mine there was a presentation of twenty-one sovereigns made to him before he left.

62. You say you advised Mr. Broome to reinstate Beirne?—I very forcibly advised him in Westport. I was against him thoroughly for discharging him.

63. Did you say that if Beirne was reinstated he ought to withdraw the charge against you?—No; I said it was an error to discharge him.

64. Why did you not go to Tressman as well when going round to get this admission?—Tressman was not working that day.

65. Do you not think, when the fire first broke out, that it was rather long for you to be away from the mine, from the 29th January to the 5th February?—I could not avoid it. I wired to the

School of Mines instructor to notify the candidates for examination, and to postpone the examination till the following day. I wired to the Minister of Mines to that effect, and I had two very severe telegrams from the Under-Secretary to the effect that the examinations must go on.

66. Do you not think you should have arranged with Mr. Dixon to be there the whole time? —Mr. Dixon was employed to take full charge of the property by Mr. Bayfeild on the 29th January.

67. Did you understand that he was to remain there during that week?—Yes. There was nothing practically for Mr. Dixon to do during the building of the fan. The tunnel was securely bratticed off as well as we could do it.

68. Did not Mr. Dixon leave with you on the first Monday night?—Yes; and was back again on Wednesday.

69. And the whole charge of the mine was left to Mr. Mitchell?—We left instructions that no one was to enter the mine.

70. Do you not think that, in view of any unforeseen accidents happening, a practical mine-manager should have been in charge just after the fire?—We did not see anything in it at the time. Mr. Dixon could have been got in a very short time. He was at hand at Granity Creek, and instructions were left with Mitchell to let him know if he was wanted.

71. You said that you could not depend on Martin?—Yes.

72. Why?—From work he had done previously, we could not trust him. The planking at the No. 1 dam was not built properly.

73. You practically left the construction of the dam in the hands of Mitchell?—I gave it to Mitchell to do.

74. What amount of water do you think the dam would hold when full?—I considered it would hold all the water we wanted.

75. *The Chairman.*] Why did it not?—Because it was not put in in the way it was ordered.

76. You did give orders about it?—Yes.

77. To whom?—To Mitchell.

78. And he did not carry out your orders properly?—There were other conditions attached to the stopping.

79. Is it a fact that the water in the dam rose 45 ft.?—We considered it was over from the tunnel at the subsidence. That would be previous to Messrs. Shore, Alison, and Foster going there. I had been wired to to meet the Minister of Mines at Kumara, and I was then wired to to meet Messrs. Shore, Alison, and Foster.

80. *Mr. Corby.*] What are your duties as Inspector of Mines with regard to this district? What are the functions of an Inspector of Mines?—The principal element is to reduce the risk of accidents to the lowest minimum, to see that the men are working comfortably, and I never make an inspection except when the mine is working. I consider that a most important portion of my duties—to see how the mine and the men are working.

81. You say that when you came to the mouth of the mine you visited about 6 chains inside the mine?—Yes.

82. Was any one with you inside?—No

83. Did any one tell you where the fire was when you arrived—that it had been located?—No. I heard that Keal had been in the mine, but, as far as I was told at that time, he had never seen any fire.

84. Were you told that he had said the fire was in a certain place?—No.

85. Did you advise Mr. Bayfeild to employ Mr. Dixon?—No.

86. In your report of the 6th February to the Under-Secretary of Mines you say, "Main intake is sealed off by 3 in. plank—clayed stopping. As no other officer here, am remaining until all outlets are sealed and everything left in safe condition." Did you try to save any of the plant that you say in another report was all lost?—We did everything that was possible to save the plant. In fact, so far as the rope is concerned, when I came out on the 28th January I told the company's caretaker to withdraw the main haulage-rope, and he just left it. The caretaker was Mr. Roland Broome.

87. Do you not think that something could have been saved?—Nothing could have been saved but what we did save after I came here on the 5th February.

88. You say on the 9th February, "Sealing-down of Cardiff Mine was completed at 2 p.m. to-day, and I consider the work has been carried out vigorously, substantially, and satisfactorily. We filled in old furnace shaft to-day. Smoke is not seen to ooze from any part of the property." Did you think it was sealed down satisfactorily?—Yes, it was satisfactorily done.

89. How was it, then, if it was satisfactory, that it had no effect?—Because the outcrops are all open.

90. You said that you saved all the property you could?—Yes.

91. What property did you save?—We saved nothing but the rope we brought out and what rails were lifted, and also the trucks from the far side.

92. When you were there first the rope was right through the tunnel and everything in working-order?—Yes; but we could not have said whether the road was clear or not.

93. You did not attempt to save anything?—Not on the 29th January, because we could not.

94. You said that the refuse and everything of that sort was kept clear: if that was so, was it possible for the fire to go on from spontaneous combustion if it had been properly inspected?—Yes.

95. You said, also, that you found charred timber discharged through the shaft?—There were pieces of bark and iron round the shaft.

96. Would not the charred timber be there from other sources?—We simply stated the fact as we got it. We did not put any stress upon that.

97. In your report of the 19th February you say, "The fire discovered on the 2nd instant by Mr. Dixon and party on the back heading of long jig cannot be taken as sufficient evidence that combustion originated and was confined to this particular part of the mine, as was at first supposed, for on the morning on the 5th instant, before the temporary stoppings were reopened (that Mr. Dixon sealed down at 5 p.m., 2nd instant), active fire was burning up through the grass at the extreme boundary at No. 2 incline workings on Chasm Creek of the coalfield." You say everything was sealed down completely ten days after: did you seal the place where the smoke was seen?—No; we could not possibly seal it. It was there that morning, as I stated.

98. Could you expect the fire to be anything but extensive after the fan had been at work eight or ten hours?—It was practically impossible to deal with the fire without ventilation.

99. Could not Mr. Dixon, instead of trying to force his way up to the fire, have put temporary stoppings in, and left the main road clear—closed all the bords which led into the seat of the fire, and so confined it where it was?—Not being thoroughly conversant with the conditions, I could not possibly give a decided answer on that point. It was absolutely necessary on Mr. Dixon's part to locate the fire, and by all possible means to ascertain the extent of the fire.

100. If you had been there could you not have left it better?—I could not say what the conditions were when he was there.

101. *The Chairman.*] You went there on the 28th January?—Yes; I left on the 29th, and Mr. Dixon was left in full charge of the property.

102. On the 28th and 29th you went a considerable distance into the mine did you not?—We went in past the North workings. We went in to about No. 3.

103. Why did you not go further?—We could not, because the air-current turned or reversed.

104. As a matter of fact, since the fire, have you ever been to where the fire was?—The furthest point I ever went in after the fire was as far as the air-shaft.

105. *Mr. Cottrell.*] You say you went in 16 chains?—Yes; it was counted about that.

106. How long did it take you to return to the mine-mouth?—We went through the north workings to satisfy ourselves there was no fire in that region.

107. If I brought evidence to show that you went only to the first turn and stopped there, would you say that it was incorrect?—Yes.

108. Did you turn to the first opening on the left hand and stand there some time?—We never went either to the right or left, because it was impossible for us to travel further.

109. Did you give instructions to the men to give signals?—Yes.

110. Did you continue to give signals all the time?—While we were on the haulage-road I believe we met people going in. The chalk-mark was left in the drive. We all looked at it on the 5th February on going in.

111. Your report goes on to say, "Monday, 5th February, 1900.—Before reopening the mine I travelled over to Chasm Creek side of the fire-affected section, in view of ascertaining to what extent the fire was showing on the surface and along the outcrops. Indications of active fire were seen at the extremity of No. 2 incline workings, also from the two drives above main drive and old furnace shaft. Returning to mine-entrance, brattice was opened and fan started. Having obtained a reliable air-current, I led the party in the main roadway until we reached the junction of furnace-shaft drive. At this point a continuous column of smoke was discharging from the rise into the main roadway, making progress impossible either to the rise or along the level plane. From this point a fierce fire was discovered on main roadway, which proved the rise workings were one burning mass. To ascertain the intensity of the fire I waited at this point for fifteen minutes, but seeing there was no possible hope of saving the haulage-road I definitely decided to seal off the whole mine." You had the fan at work properly then?—Yes.

112. As the fan was working properly, could you not have got further up from the mouth of the mine?—Not with safety. I did not see any advantage in it; neither could I have got men to work in there.

113. What did you expect to save by putting the dam in where you did?—The stopping there was as effective as if it had been put further in.

114. Had you put the dam in 8 or 10 chains further, could the coal have been got at within ten hours?—I did study the conditions I was working in then. The first part of the paragraph shows my desire was to see if by any possible means we could save the haulage-road. That was the original design of Mr. Dixon and myself.

115. A far more effective way was to block off stoppings on the main road: instead of going that way to the fire, if they had blocked off the air-courses, would that not have been the most effective means?—Assuming that we had been able to save the haulage-road through the tunnel by stopping all the bords, the open and broken country overlying the pillar ground would have supplied fresh air to support the combustion.

116. As you say this is the case, and there was no commercial value in the coal, and no danger of the fire spreading to the North section, where was the use in going to all this expense for nothing? Was it not better to make permanent stoppings right off? What did you expect to effect?—We expected to save all the coal in the mine. If it had been possible for me to have had a water-dam at both ends of the tunnel, and to have raised the water, the result would have been the same to-day.

117. It was only a small fire when the fan was put to work?—The effort was made to locate the fire. If you assume that Mr. Dixon had attempted to seal the fire without locating it the same result would have occurred.

118. *The Chairman.*] Why?—I consider that as practical men it was our duty to locate the fire, and, if possible, to see what we could save.

119. But what result would have occurred? Do you mean that as regards the inquiry the same dissatisfaction would have occurred?—Yes, for not locating the fire.

120. *Mr. Corby.*] You say the fire would have burned the same if you had sealed it off, and if the stoppings had been put in properly?—The outcrop ground was all broken and open. We knew that before the mine was stopped. It was impossible to deal with the outcrops—it was beyond human aid. I think Mr. Dixon's reports are quite clear on that point. It was impossible to do anything on the haulage-roads, because the fire came back on him so rapidly.

121. *The Chairman.*] Supposing the thing was to occur again, what was there to prevent your going into the main entrance and sealing off the bords as you went along, driving the foul air back by a gentle application of the fan, if necessary, thus enabling you to take in a return brattice?—The fire came back on the haulage-road, and it was impossible to deal with it.

122. How long would it have taken to seal off the bords? Was it that the work was too great to do, or was it that the result would have been disastrous? It is suggested that you should, first of all, have sealed off the bords on the right-hand side as you went in?—There was nothing to prevent that. That was what we were fighting for—to go up and find out where the fire was. When I left Mr. Dixon my instructions to him were to brattice off all the openings on each side of the drive—on each side of the main haulage-road.

123. Was that done?—That was not done when I again entered the mine on the 5th February.

124. Do you know why?—I asked, and he said that he thought that with the air-current he had it was not necessary. It was the first thing I asked him when I did see him. We made an effort to cut off at No. 6.

125. Could it have been done on the 29th?—Possibly it could; but it was impossible for a man to live at No. 6 for two minutes.

126. *Mr. Lomas.*] If you gave orders that these places should be bratticed off, how do you reconcile that with the statement you made that when you came back the mine was satisfactorily sealed up?—The mine-entrance was sealed up. There was sufficient ventilation to carry forward the work of locating the fire. The chief thing in stopping this place was to prevent the accumulation of gases coming in behind the men. That was the precaution required.

127. Where was Mr. Dixon on the 5th February?—He came out on Wednesday, the 7th, when we were finishing the stopping. I do not think the coal in the North block is of any value. It is full of faults. Mr. Broome had driven past it.

128. *The Chairman.*] Now, with regard to the Hector block, is there any quantity of coal wasted in that block in consequence of the fire?—No. There are a few pillars on No. 1 left standing at present. There is no coal worth speaking of—that is, solid coal. There are a few pillars.

129. What damage has the fire done to the mine generally?—The fire has been the cause of the loss of a very small quantity of coal, and it has probably destroyed parts of the haulage-road. It has not interfered with the North block. The tunnel has fallen in just inside the stopping. Directly inside of the dam now the main tunnel has subsided direct through to the surface.

130. *Mr. Lomas.*] What do you think is the cause of that falling in?—We cannot tell.

131. Do you think it is due to the flooding of the tunnel?—It is solid rock there, and we were more than surprised.

132. *The Chairman.*] What is the height of the cover?—It may be 70 ft. The ground settled down.

133. *Mr. Lomas.*] Has not the flooding of a mine a tendency to destroy the roof?—Yes, sometimes.

134. You said no coal of any value had been destroyed by the fire?—No.

135. What means have you of knowing that?—Because the fire would naturally burn to the nearest place where it could get fresh air.

136. You say you saw the fire in the main drive?—Yes.

137. Where did it come from?—It came from that heading.

138. If that is so, it is possible that places between the pillars and the main drive may be somewhat burnt?—Yes, there would be a scorching.

139. What would put the fire out in the pillars?—The dam. They would get no air. After we put in the stoppings I reduced the speed of the fan to just enough to give the men air.

140. *Mr. Corby.*] Is the plan produced a correct one?—The plan I produce is the accurate plan.

141. You say that the object of Mr. Dixon and yourself was to locate the fire in order to save what property you could?—That was the design.

142. When Mr. Dixon located the fire, did he try to protect any property?—No; he did nothing but locate the fire. It was impossible to save the rails.

143. Do you think if this mine had been a large one, such as those at Denniston and Granity, you would not have taken more active steps to put out the fire?—I exercised all the skill I had, and all the physical energy in my body, to rescue the mine.

144. When you came there did you know that Mr. Dixon was going away with you?—He went back with me.

145. Did he promise to faithfully carry out your instructions?—There was no necessity for him to be there while they were constructing the fan. He would have been there within an hour's notice if required, and instructions were given that no one was to be allowed to enter the mine during his absence.

146. Do you not think it would have been practicable to put a practical mine-manager, who was on the ground, to take his (Mr. Dixon's) place in his absence?—I could not see the utility of it, because there was nothing to be done but the rebuilding of the fan.

147. *Mr. Lomas.*] Do you not think that some competent person ought to have been there night and day, whether they were erecting the fan or not, to watch the development of the fire?—Mr. Mitchell was there all the time. He is not a certificated man, but he is a good practical man.

148. That is not an answer to my question. I asked you whether you thought a competent man ought not to have been there night and day to watch developments while the fan was being erected?—I could not see that it would be of any practical value to the property.

149. *Mr. Corby.*] When you were putting in the first stopping you say the men had all they could do to get it in where they did: could they not have got it in further?—It was impossible under the conditions.

150. The fan being worked, was it not able to clear the tunnel of foul air so as to allow the men to go further in?—When I started operations to build the stopping on the afternoon of the 5th February I anticipated no trouble with the current of air at our command; but at midnight a big fall took place, and I am satisfied that, if we had attempted to build the stopping where we found the smoke and saw the flame, every man would have been lost, and there would have been very great difficulty in recovering the bodies.

151. In what way would the bodies have been lost?—They would have been lost in consequence of the gases and black damp. They could not have lived in it.

152. You think it would have been hard to recover the men?—We could have got into the tunnel. The fan worked, but it was not effective to us.

153. How was it you allowed the men to work at this stopping without erecting any brattice?—It was no good in that respect.

154. If brattice is no good to keep out the air, how is it that they use it?—We had the fan to keep the gases going out of the tunnel-mouth. We could not possibly have done without it. It was an impossibility to get inside of the stopping. The fan was going until the stopping was finished.

155. After the fall coming and the fan knocking off they experienced a difficulty in breathing, did they not?—That is what I am trying to explain.

156. But if the brattice had been erected ahead of them in the tunnel could they not have got in?—That is what we were fighting for.

157. *Mr. Lomas.*] Could you not have erected a temporary stopping in front of the permanent stopping, so as to keep back the black damp?—It was impossible.

158. It was impossible to put up a temporary stopping, and yet you were putting up a permanent one?—We were only putting up a temporary stopping at the time.

159. *The Chairman.*] Take the stopping you did put in, would it not have greatly assisted you to put a temporary stopping ahead of that?—We could not do it. We were putting in a temporary stopping in the work we were doing, because we simply nailed the planks on the props. The next day's work was quite comfortable.

160. *Mr. Corby.*] How long would it have taken you to put in a temporary stopping?—I cannot tell; it might have taken two months.

161. A brattice stopping: the men here say you could have put it in in two hours?—It was impossible at that point. The stopping we were building was on a temporary principle. The work was done with every possible speed we could bring to exercise on it. It stood there until we cut it on the 5th July.

162. When you put the dam in did you intend it to stop water?—No; but it was necessary to build it in dam form to keep out the water. The water ran level through the pipes. There was no room for air. We put in a margin of safety for flood-water. Every precaution was taken to prevent the intake of air. All the time the stopping stood open it ran out black damp. It never took in air: it was the other way about, and if you put your lamp there your light was put out. It never cooled inward.

163. Now, about the other dam, did you expect that to hold water?—No. It was just the same as the other; it was an air stopping. I made provision when I built the stopping to build water-dams. The whole thing was carried out on the 5th February. There has been nothing carried out in the colliery but what was practically arranged for at that date.

164. Did you make a plan or specification for this dam?—No.

165. To whom did you let the dam?—To Mitchell.

166. And to Martin?—No; I did not see Martin.

167. Was it a contract?—No, it was not altogether a contract.

168. How much were you to give him for doing it?—I told Mitchell that £20 was to be voted by the company, but that was not to be the price of the work. If more or less was required to finish it he would get it.

169. Did you give him the plan of the dam?—I gave him the dimensions of the plan.

170. What did you consider it would take to build it?—I knew it would take more than £20. I left the work in his hands to make a job of it.

171. An engineer should have an idea of what it should cost: what do you think would be a fair value to build the dam according to your instructions?—I counted on giving Mitchell £10 more.

172. You think £30 would be a fair price to build a permanent dam there against any pressure of water likely to be met with there?—Yes; to build the dam that was wanted, with the assistance of the stopping inside of it.

173. How long did you think it would take to do it?—There was no time given. It could have been done in about three weeks.

174. You had occasion to build one in there since?—Yes.

175. Did it cost three times as much as the other?—It cost £50, including ventilation. That is the cost of construction.

176. That is the amount for labour; but what is the cost of the material?—There would be £20 in material.

177. It cost £70 for labour and material: if that is so, why did you spend £70 if £30 was

enough for constructing the other dam in that very identical place?—There was nothing but the dam to stand against. The stopping inside was supposed to be quite equal to hold the full body of water.

178. Do you think it was possible for Mitchell and Martin to make a watertight dam with the material they had to do it with?—Yes. We laid in 12 by 12 solid logs, but we did not cut a log. If the logs had been put in perfect the dam would have been standing to-day. We depended on the logging, not on the clay.

179. At the time you commenced to build the last dam, did you intend to give effect to Messrs. Shore, Alison, and Foster's recommendations? Did they not advise that the dam should be put in 10 or 12 chains further?—Yes.

180. And you made an effort to do so?—Yes.

181. What prevented you doing it?—The tunnel silted, and we did not know the extent of the *débris*.

182. As a practical man, did you not know how to get over the difficulty?—We did not consider it practical to do it.

183. What danger was there in doing it?—We did not see the necessity of incurring an extraordinary expenditure and possible loss of life.

184. Have you any idea of how the Minister of Mines did not employ some other man who could reckon he could do it?—I have nothing to do with that.

185. Do you think you have sufficient to do in your own business without carrying on works of this description?—I have nothing to do with it. I was willing to carry out everything that was wanted.

186. By the report in Wellington you work according to the Act under the Minister of Mines: by what authority did you depart from their recommendations?—My instructions from the Minister were that the Mines Department had placed implicit confidence in me to cope with the property in any way I chose.

187. Why did you go to all that trouble if you knew you could not do it?—Simply to prove that it was what I thought it was.

188. If you had known it was safe did you mean to go there?—Yes, we were determined.

189. Then, what prevented it?—I saw it was silted solid and filled up. We did not know at the time that the tunnel was broken down at the point; neither did we know the extent of the *débris* or the depth of water lying behind the *débris*, nor the expenditure that would be incurred from the risk to life, and we decided to build the dam.

190. From what source did you think life was endangered?—In liberating the water. We thought there was nothing to be gained by it even if the dam were built into the second stone drive.

191. Then, why go to the expense, and then because you saw a bit of a fall in the tunnel, and did not know how much was at the back of it, you did not proceed and try to open it up?—Messrs. Hayes, Dixon, and myself did not think it necessary.

192. If a subsidence connects with the mine, why build a dam there at all?—We did not know whether the water would flow over or not.

193. Would you have any fear of a subsidence causing an overflow if you constructed the dam on this other side, 10 chains inside the tunnel?—I am not going any further with it. Messrs. Hayes, Dixon, and I were all three in authority. When we found the dam as we found it we decided not to proceed further into the tunnel.

194. If you could put a dam in the other place, would there be any danger of an overflow?—No. There would be in more solid ground.

195. Was it not a better place to construct the dam if you could have got there?—Certainly. We had no idea of the extent of the *débris* in the tunnel, nor the volume of water behind it, and the other two gentlemen with myself decided to go no further.

196. *Mr. Lomas.*] How far did this *débris* go to the roof?—It was solid to the roof; in fact, it is acting as a natural dam inside the dam. Three or four days after Messrs. Shore, Alison, and Foster cut the dam there was an outrush of water. We judged from the outrush of water that the tunnel was silted with *débris*.

197. *The Chairman.*] Was there nothing behind it?—Yes; the main air stopping, and that resisted it from going any further. Mr. Hayes said, "This stands to your credit," because that stopping had stood. This was the stopping put in on the 5th February. There is a question of ventilation about this. Supposing the dam had been built inside, where were you to get your ventilation in? There were no means to ventilate that section.

198. *Mr. Harden.*] With regard to the expenses of the latter dam that was built, I have a statement showing the details. You took over the mine on behalf of the Government?—Yes.

199. Do you know the date?—23rd May, 1900.

200. Up to the 23rd May, 1900, this mine was the property of the Cardiff Company?—Yes.

201. When a fire occurs in a mine whose duty is it to extinguish it?—The mine-owner's.

202. Who employed Mr. Dixon?—Mr. Bayfeild, the local agent of the company.

203. Did the company request Government aid to extinguish the fire?—Not to my knowledge.

204. Did you get any instructions from the department to assist the company?—Yes.

205. When?—On the 2nd February. I was asked when I was going back, and what steps I intended to take. I had no authority to spend a shilling.

206. From whom did the inquiry come as to when you were going back?—Mr. Elliot, Under-Secretary, telegraphed to me on the 1st February: "Tennent, Inspector Mines, Reefton.—As the examinations are to-morrow forenoon, can you return at once to Cardiff Mine to confer with Dixon as to means to be taken to extinguish fire? What suggestions did you make as to this when

you were at the mine on Monday? Reply to-day, please." There is a telegram from Mr. Dixon, as follows: "Inspector Mines, Reefton, February 2.—Discovered seat of fire up back heading of long jig. Extent not yet known. All safe." Then there is another telegram, unsigned: "Fire active. Extent not ascertained yet. Every safe effort being made." On the 3rd February Mr. Dixon wires: "Fire found too active and extensive, also roof falling renders it unsafe, in my opinion, to deal with it other than by sealing off affected district. Have suspended operations and temporarily resealed the mine pending your investigation on Monday. Arrangements are made for fan to run for that purpose. If you wire me, address Granity. I will see you when passing through on Monday."

207. Who paid the expenses in connection with the attempts to subdue the the fire?—The company.

208. Had the manager left before the fire broke out?—Yes.

209. How long before?—About two days. He left on the 25th January.

210. Had he left the service of the company?—Yes. This is a letter I received from him, dated Westport, 26th January: "I beg to inform you that my engagement with the Westport Cardiff Coal Company (Limited) as manager of the company's mine at Seddonville terminated yesterday.—Yours truly, GEORGE H. BROOME."

211. You got notice on the 25th?—Yes.

212. And who did you find in charge of the property when you came out?—Roland Broome, who was caretaker to the company. Mr. Mitchell is at present in charge: I appointed him on behalf of the State.

213. With regard to the stopping of the bords, was the only object in stopping all the bords to prevent bad gases overtaking the men?—Yes; following behind the men.

214. Would the effect of not stopping them in any way increase the draught of air?—It could make no difference to the current of air.

215. Then, in your opinion, had the non-stopping of these bords any effect upon the breaking-out of the flame?—It could have no effect at all.

216. They opened up no additional or fresh channels of air?—Those sections had no connection with the fire district.

217. When Mr. Dixon left on the Friday for Granity Creek, not to return again until the following Monday, do you think he was creating any great risk considering he was only going so far as Granity Creek?—That is a point I would not like to speak much upon. I consider that when he was in charge he should have carried on operations.

218. Did he leave the mine sealed up?—Yes, temporarily sealed up, as he states in his telegram.

219. Did you find that sealing-up to your satisfaction when you returned?—Yes.

220. Who did he leave in charge?—Mr. Mitchell.

221. We may consider that in your opinion Mr. Mitchell is a capable man?—Yes.

222. It is stated in the departmental report that the 2 in. pipe you put in was not sufficient to fill up the mine. You see that Messrs. Shore, Alison, and Foster recommend that a 4 in. or larger line of pipes be laid to the source of supply near the end of the bridge: was there more than sufficient water to supply this 2 in. pipe?—Only at times, after heavy rains.

223. In ordinary weather what supply was there?—In dry weather it was down to a quarter or half an inch.

224. And in average weather?—It might be running half a pipe.

225. Messrs. Shore, Alison, and Foster say in their report:—

The present method of dealing with surface outbreak at Chasm Creek, between K. and H., is: A 2 in. pipe has been laid from a creek on Bridge section across bridge to above tunnel: a 20 ft. piece of canvas hose with nozzle is attached to this, and for eight hours per day, from 8 a.m. to 4.30 p.m., one man is in charge playing the water upon the fiercest flames. From 4.30 p.m. till 8 a.m. no one is in charge, and the water during that time is allowed to run on one spot. We must certainly condemn the above system of working. The water-supply is inadequate, and what is available is not being used to advantage. We would recommend that a 4 in. or larger line of pipes for main column be laid from source of supply to end of bridge at mine exit; a T-piece with 2 in. branches be then connected to the column, and the present 2 in. pipes be laid along face of cliff on both sides, extending altogether from H. to L. At intervals in this line 2 in. T-pieces be placed, so that hose could be attached along line at different points. Two men to be in constant attendance, each working a nozzle. If water-supply ample, at some of T-pieces water to be allowed to run free to worst points.

226. Could that line of pipes be laid?—No; I do not consider it practicable at all, neither was it safe to life.

227. Why?—Because it was not a safe place for men to be working, the ground being so broken and the hillsides tumbling over. I might explain, with regard to the 2 in. pipe line, that it was simply brought over to keep the tunnel cool, and, knowing there was every probability of the bridge end of the tunnel being damaged, I wanted to protect the tunnel-entrance. It was with no view of extinguishing the fire further than protecting the tunnel.

228. Were 2 in. pipes available on the ground?—Yes. I instructed Martin, when he was removing the plant, to leave those pipes, as I would in all probability need them.

229. They go on to say: "The utilisation of a fan to create a strong draught through a mine on fire was contrary to recognised custom of dealing with fires." I think you have already said it was not the proper method?—It was impossible to get into the tunnel, and it would have been out of the ordinary custom to take men into the tunnel without having a clear outlet in the event of danger occurring.

230. You know where the brattice-cloth stoppings were used?—Yes.

231. Do you consider they were properly used?—Yes, so far as making their way to the seat of the fire. It was simply of the most temporary character. Nothing permanent could be done until we had determined what we were going to do.

232. *Mr. Lomas.*] You said just now that the method you used with the fan, and so on, was the only method used anywhere?—Yes; whatever would be the system of ventilation, you would use a fan if they had one under the same conditions.

233. Did you ever know of any fire here before?—No.
234. Had you any suspicion about the origin of this fire?—No.
235. *The Chairman.*] Who first suggested to you that there had been foul play?—No one ever suggested there had been foul play to me.
236. *Mr. Lomas.*] You said you did not stipulate about anything with Mitchell in connection with the dam, but simply give directions how it was to be built.
237. Did he carry out your directions?—No. I believe the work was taken out of Mitchell's hands.
238. Who took it out of his hands?—The company's caretaker, I believe.
239. Did it go into somebody else's hands?—Yes.
240. Who was it?—Martin, as far as I understand.
241. The first time you saw the dam after it was constructed, did you think it was not done according to your instructions?—I told the men that. I spoke to Mitchell about it. I did not know at that time that Martin had had anything to do with it.
242. That was before you saw it leaking?—Yes. When I first saw it there was a little leak, but everything else was right. The joining of the logs in the walls was perfectly right.
243. The trouble was simply at the top?—Yes.
244. *Mr. Proud.*] If your other duties had not taken you away, and you had remained there, do you think you could have got the fire out?—No, I do not think so. From the position of the fire before I touched the property, I consider that if it had been possible in the first twenty-four hours to put a water-dam through the tunnel the outcrops would have been burning to-day all the same.
245. What appliances were at the mine for extinguishing fires?—None. There was not even a pick or steel to make tools to cut out seats.

MONDAY, 28TH JANUARY, 1901.

ALEXANDER MITCHELL examined.

1. *Mr. Harden.*] You were one of the deputies for the Cardiff Company?—Yes.
2. For about how long?—For about five years. I was mining deputy and underviewer.
3. What were you at the time that Beirne and others were working at the big dip?—I was deputy.
4. Were you down the workings often?—Sometimes I examined the mine as fireman, and if the other deputy required assistance I went with him, and sometimes went to see how the men were getting on when he went home.
5. Do you know where Beirne was working when the men came out and said the workings were dangerous?—I was instructed by Mr. Broome to go and examine it that day.
6. What was the width?—Before they started to take out the heading the width was 9 ft.
7. Up to what height?—It was a coal roof. In some places it might be 5 ft., 6 ft., or 7 ft. It was an average of about 6 ft.
8. *The Chairman.*] What was the thickness of the coal in the roof?—I could not say in that particular place. It was good hard coal. It was sufficiently strong to hold up the props.
9. *Mr. Harden.*] How did you find the place when you were told to examine it?—If I had been going to make a report I would have reported it fit for work.
10. Would you have ordered the men out of it as a dangerous place?—No. But sometimes there are disturbances where, unless a man is used to them, he should think the roof was coming in. During the time I was there there was nothing to indicate any danger.
11. And you say you were there after Mr. Tennent had been there?—Yes. I met Mr. Tennent after that, and I understood that Mr. Tennent had examined it.
12. You say Mr. Broome sent you down to examine it?—He sent me down to the place, but did not instruct me to examine it—*i.e.*, to make a written report.
13. What was the ventilation down there like?—It was fairly good.
14. Was the working good?—It was very hard. If I had been in it, and could not honourably get out of it, I would have considered it an unlucky cavil. There were other places where the same amount of energy spent would give twice the money.
15. How long did they work there?—I could not say.
16. Do you remember when they knocked off?—I remember after they knocked off.
17. Do you know why they knocked off?—I understood from the management that some of the machinery broke down. This was a dip where coal was drawn by a friction-wheel. This wheel got out of repair so much that they could not go on without getting a new wheel.
18. Was what was left worth getting a new wheel for?—In my opinion, it was not.
19. You withdrew the plant?—Yes, with the assistance of others.
20. With regard to the fire, where were you when informed of the fire?—Sitting at home.
21. Who told you about the fire?—A young lad named Keal came down and told me that some men at the Cardiff and his father had sent him down to tell me that the Cardiff Mine was on fire.
22. About what time was that?—About 1 o'clock. I was at dinner.
23. On what date?—This is the anniversary—Sunday, 28th January.
24. Did you go up to the fire?—I hastily finished dinner and asked Mr. Clark if he could go with me. He said he could not. I sent for Mr. Wilkinson, and he came afterwards, and I went up.
25. Who did you find there?—I remember seeing Mr. Martin and Mr. McIndoe about the time I got there, and I was not there very long before I saw Keal coming out of the entrance.

26. At what time did you get to the mine?—It would take me about an hour to get there. It would be about 2 o'clock.

27. What did you do when you got there?—I consulted with McIndoe as a miner about sealing or bratticing the intakes and outlets of the mine, which was done. I considered that in the absence of a certificated manager or the Inspector of Mines it was not our duty to go into the mine if we saw the danger from the outside.

28. You sealed and bratticed off the entrances to the mine—and then?—I discovered that Mr. Tennent had been communicated with, and waited until he came out.

29. You did nothing more until Mr. Tennent came out?—No.

30. When did Mr. Tennent come out?—I should say it would be between half-past 7 and 8 o'clock that night. He was with Mr. Broome at Corby's when I saw him.

31. What was done then?—Mr. Tennent visited the works, lifted the bratticing, and went inside the mine.

32. How far?—I could not say. I do not remember being with him inside the mine that night.

33. *The Chairman.*] Did he go alone?—As far as I know, he did.

34. How long was he there?—I could not tell.

35. *Mr. Harden.*] And when he came out what did he do?—He sealed the mine up again. I did not ask him what he was going to do. I went home, and I do not know where Mr. Tennent went to.

36. *The Chairman.*] What time was it when you parted with Mr. Tennent?—Between 9 and 10 o'clock, I should say. Mr. Tennent and Mr. Dixon came on Monday to the works as soon as the train came in—about 9 o'clock.

37, *Mr. Harden.*] When did you go to the mine again?—About 8 o'clock; I was in attendance at the works.

38. *The Chairman.*] Where did Mr. Tennent and Mr. Dixon come from?—Mr. Dixon came from Granity, I believe. Mr. Tennent was stopping in the district. When Mr. Tennent came up he and Mr. Dixon consulted and went inside the mine. The men there had not any work to do, because there were no commands given. It was decided on Monday to erect the fan. That was communicated to me by Mr. Dixon.

39. Did they seal the mine?—They sealed the mine as far as possible by timber and bratticing until the fan was erected. They tried to shut out the air.

40. Do you consider it was securely closed in when you left?—Yes, to stop the intake of air.

41. Nothing was done until the fan was erected?—Not inside the mine.

42. When was the fan ready for work?—I think it was Friday following, the 2nd February.

43. When did Mr. Tennent and Mr. Dixon leave?—Messrs. Dixon and Tennent were there all Monday. I do not remember Mr. Dixon being there on the Tuesday, but he may have been. Mr. Tennent had to go, as I understood, to Reefton.

44. When did he leave?—On Monday, I presume. It might have been by the evening train.

45. *The Chairman.*] Who was in charge of the works when they left?—Mr. Dixon was in charge.

46. *Mr. Harden.*] Did he leave any one in charge?—He left Mr. Mumm in charge of the fan.

47. *The Chairman.*] Who was in charge of the mine?—No one was in charge of the mine that I know of. Mr. Dixon was in charge although he was absent.

48. *Mr. Harden.*] Who was in charge of the mine before the fire?—I do not know who was in charge after the 25th January.

49. Was Mr. Roland Broome in charge, do you know?—Only from hearsay. On Monday Mr. Dixon said he was manager, and that he would have his instructions obeyed. He put Mr. Mumm in charge of the fan, but not of the mine.

50. Do you remember when Mr. Dixon returned?—On the Wednesday.

51. At what time?—I do not remember whether it was in the morning or in the evening.

52. Did he stay then until the fan was ready?—Yes.

53. *The Chairman.*] What were you doing on the Tuesday?—I would be helping Mr. Mumm to get men.

54. What was your position?—Mr. Bayfeild appointed me as deputy on the Sunday by telephone.

55. *Mr. Lomas.*] You were really in charge of the works in the absence of the manager?—Yes; but there was no work to be put in charge of so far as the mine was concerned.

56. *Mr. Harden.*] Was any one in charge supposing any of the stoppings got loose?—I believe I would be, but I had no instructions to do so. Would have wired Dixon any change, who could reach the mine in an hour.

57. What were you doing between Monday and Wednesday?—Assisting at the erection of the fan and keeping the men's time.

58. How many men were employed?—About twenty.

59. Did you get the men?—I went to the places for the men and put them on the different shifts.

60. *The Chairman.*] And gave them orders?—Yes, receiving my instructions from Mr. Dixon.

61. *Mr. Harden.*] When the fan was erected what was done? You said you thought the fan was erected on Friday?—Mr. Dixon got an exploring party to enter the mine on the Friday. He was a stranger to the men, and asked me to pick out four or five practical men to accompany him in. The men's names appear in his report. Before he went in he asked me to take stock of the chalk-mark he had put in on a previous occasion, and when I got in I found the mark at the middle curve, about 13 chains in. He put the mark in on the Monday, I believe.

62. Who went in first?—Mr. Dixon.

63. Who accompanied him?—J. Clark, J. Smith, R. Broome, A. Mitchell, and there were others following in behind so as to stand at intervals for a line of communication.

64. Who arranged the line of communication?—I did: that is, I told the men, as I knew them by name, where to stop.

65. By whose instructions did you do this?—By Mr. Dixon's.

66. And he indicated to you the places where you were to place the men?—Yes. We got to the first entrance—in what is called the Hector block, and which is also called a heading—and saw smoke was coming out of that. We had the apparatus to put up a screen to direct the air to any particular place we wished it. A stopping was erected across the main road, and the air was directed up this heading—the first opening in the Hector block—the back heading to the long jig. It was partly cleared of smoke to enable us to get up it. We got up to a communication with the long jig that is called a crosscut. That was bratticed off the same way as main road. On the right-hand side there was a communication with the shaft, and that was closed off. We got to the second cut-through or stenton leading from the long jig. It was not bratticed off, because we found the air was not going up this back heading past the fire. We could not send the smoke back from this stenton—that is, we could not get ventilation past this stenton—without making a return in the heading in which we were, but by dividing this heading with canvas we had the intake and return in it. The return being on the left, when it came to the second stenton it passed into and through it to the long jig. Had there been another stenton higher up and unclosed, the air going up would have passed through it, and we would not have required to construct a return to the second stenton. Mr. Dixon then decided to use as his return airway this particular stenton. We took the canvas up and air past, making a return on our left hand—I think it was constructed for about half a chain past the second stenton. It was then that I saw the fire. During this time they were making very little headway owing to the smoke. We were not able to clear our way to the fire. I was about 2½ chains up with the return from the main road. We had blocked off the places, and carried the air in front of us. We could not get a return where the fire was situated, and we had to bring the return down the same drive to the second stenton. We could see the fire, but could not get the smoke away from the roof. Mr. Dixon called for an apron—that is, a sheet of bratticing put across the intake, extending 3 ft. from bottom—and raised the air over it to clear the roof, so that we could see what it was like. We put the apron up to 3 ft. from the floor, to make air go up a certain distance past our return.

67. Were you alongside Mr. Dixon going up?—Yes. The canvassing was put up with much difficulty. I went as far as I could possibly go to the end of the canvassing. Mr. Dixon was with me; he would not allow any one to go in front of him, and I should say the fire would be about a chain and a half or less away then, making it about 3½ chains from the main road. I do not think any one there could go within less than three-quarters of a chain of the fire owing to the smoke.

68. Did you and Mr. Dixon go any further?—We went into what is called No. 1 heading or the long jig. We did not go further than the long jig, because we saw conditions that made us retrace our steps, this long jig being a full chain past the fire heading—at right angles from the fire. This No. 1 heading had been used for trucking for three or four years, and the timber was now lying on the ground with coal lying about it. What caused this coal to come down amongst the timber I do not know. We were within the line of the air, but we could not see any distance up, the wall of smoke being so thick; but we could see there was a lot of timber and coal where standing. I think the fire was along there. Our energy was spent in seeing the extent of the fire, and to see if it was possible that we could get at it. We had men with buckets of water there, but we could not get near enough to the fire, and the roof was considered to be very unsafe when Mr. Dixon examined it after clearing it.

69. When you saw the fire what was it like?—It was not very bright, because the air could not get to it; but it reminded me of a fire about 9 ft. wide and 8 in. or 10 in. high. If a fall of coal had just recently been on it, which we had reason to believe might have been the case, we should not have seen much fire. It was an unsafe thing to go near with the appliances we had. If we had had the air and a good pump we might have gone closer, but from the condition of the coal above my head, and other conditions, I did not think it was proper to go near it.

70. *Mr. Harden.*] How near do you think any one got to the fire?—About three-quarters of a chain. I believe I was the nearest, but there might have been others nearer.

71. Who was with you?—Mr. Dixon. It was too hard to judge the distance to fire on account of the smoke. Mr. Dixon withdrew all the men and decided to seal up and wait until Mr. Tennent had seen it.

72. What was done when Mr. Dixon gave the order to retire?—Near the first stenton from the main road leading from this heading where the fire was found to the No. 1 jig there was a brattice put across. It was put up to prevent any air getting up to the fire. It was put up with canvas and timber, constructed to make it securely tight. The sticks which were brought up were put across the main haulage-road. The screen on the main road was rolled up 3 ft. and tacked so that the air could pass through its usual course to the bridge. Mr. Dixon was very careful in rolling up the screen to allow the air to get through. He said, "I will make sure of this; I will put the last nail in myself." Mr. Dixon instructed a resealing-down of the mine again, which was done. Nothing more was done until Mr. Tennent came on Monday, the 5th February. Mr. Tennent did not go into that end of the mine first, but into the other end, and came back again and asked for the same party to go in with him. I gave instructions that the same party who went with Mr. Dixon should go with Mr. Tennent. I went with Mr. Tennent, but we did not get nearly so far as Mr. Dixon got. We went in past what was called the middle curve to a drift leading up to the shaft. We could not go any further on account of the smoke coming down this

drift. We saw the fire at or near about the foot of this heading at which it was first found on the main haulage-road.

73. *The Chairman.*] If you did not go so far as Mr. Dixon, and you saw the fire, it must have moved further?—The fire had travelled down the heading on to the main road.

74. *Mr. Harden.*] What was it like then?—It was certainly much larger than when we first saw it with Mr. Dixon. It was in the main air-course or haulage-way then.

75. Did you hear an explosion in the mine?—No, but I heard of it. I was not with Mr. Dixon when the fall took place, but I was satisfied that it had taken place.

76. Did you see the fire break into flame when the fall took place?—No; but I am satisfied it took place. I was not there. When I was in with Mr. Tennent he said, "We cannot get up there; we shall have to get outside." His words were given effect to, and we came outside. He decided then to erect clay stoppings at the entrances—that is, at this end entrance and the bridge outlet. This was pushed on as fast as possible.

77. You know the clay stopping at this side (Seddonville) mine-entrance?—Yes; there was one put there and on the other side.

78. Taking the one this side, do you think it could have been put, with safety to the men, 8 or 10 chains further in?—I would not risk my safety, although I had no doubt of the Inspector's capability of putting it in safely as far as it was possible to get it.

79. Would you have put it in that distance?—No.

80. *The Chairman.*] Would you have put other men on it?—No.

81. *Mr. Harden.*] It has been suggested that by putting temporary bratticing in you could have got further in without danger to the men: is that your opinion?—For a very short distance you might, but for any considerable distance I would not do it from the conditions about the main road being very significant.

82. Do you think there was anything to be gained by putting it 8 or 10 chains further in?—I could see none, nor can I see any now.

83. Were these stoppings completed—the one at this end, and the one at the other?—Yes.

84. And the mine sealed down?—Yes—that is, so far as the openings are concerned that were made by the management in working the coal. The mine was not sealed down, because there is a lot of pillared ground where the coal had been taken from and where the roof had fallen down. It would be impossible to seal the mine there. There were holes there then and now that you could drop a dog in for about 40 ft., and these crevices were made there before the fire broke out.

85. When you went in on the first occasion with Mr. Dixon it has been suggested that you ought to have stopped up the bords on each side: was there any advantage to be gained by doing that?—Under the circumstances, I do not think there was any advantage to be gained.

86. Would they increase the air-current?—I do not think so.

87. Were there any openings?—No, not leading to outcrops; they were all blind. The left-hand side places were filled with water, and on the right side there may have been openings for a chain and a half or two chains away from the road, but you could not get through them to the outcrops. There was no air-current through them to the outcrops, and they were not connected with the fire district; so, if clear when the fan was started, there was no danger of the smoke or current coming back to them again so long as the current of air was maintained right through to the bridge.

88. Did the current come through to the bridge?—So long as the main road remained open.

89. Did it on the occasion when you went up with Mr. Dixon?—Certainly, or we could not have got in.

90. After this permanent clay stopping had been erected what was done?—We filled the shaft up with clay, and then nothing was done until Mr. Tennent arranged for building a dam.

91. *The Chairman.*] How long after was that?—We completed the work with Mr. Tennent about Friday after the 5th, and from that date to the 24th February there was nothing done.

92. *Mr. Harden.*] Was any one left in charge?—Not to my knowledge—not by the Inspector. When the shaft was finished I had nothing more to do in connection with mine until I commenced the dam.

93. *Mr. Lomas.*] When was that?—Some time after the 24th February—within a week, if my memory serves me.

94. *Mr. Harden.*] You were not in charge, and had nothing whatever to do with the mine until then?—No. I was timbering for the company, but that was by contract away from the mine.

95. *The Chairman.*] You altogether repudiate the idea that you were the deputy in charge during the absence of Mr. Tennent and Mr. Dixon?—After the filling of the shaft, yes.

96. *Mr. Harden.*] Just tell us about this dam?—Mr. Hayes, Mr. Tennent, and I spoke about the dam on the 24th February. Mr. Tennent and I discussed putting in a dam with logs—no clay; but Mr. Hayes suggested that the clay would assist. It was ultimately decided that it should be a log dam backed up with clay, and this dam was to be put behind the stopping. There was to be about 6 ft. of clay as a packing between the airtight stopping and the logs to construct the dam. This clay was to be got at the mouth of the mine. Mr. Martin and I were working at putting up the timber in the tunnels, and I went up to look at the site of the dam to see if there was much coal or slack in the bottom, and to clear it out. Mr. Martin came down and saw Roland Broome, whom I understood, by hearsay, was caretaker to the company, and Mr. Martin informed me that Mr. Broome had no authority to go on with the dam.

97. Where did this conversation occur with Mr. Tennent and Mr. Hayes?—Coming from the Bridge section and going to it over the hill. We picked out the site coming back. They pointed out the site to me, and instructed me the sort of timber that was to go in it, and advised me how it should be done.

98. *The Chairman.*] Mr. Tennent instructed you to build the dam?—Yes; he instructed me to get the timber from the sawmill.

99. *Mr. Harden.*] He instructed you to build it?—Yes.

100. And the sort of timber you were to use?—Yes.

101. And where you were to get the timber from?—Yes.

102. Tell the Commissioners what the instructions were from Mr. Tennent?—I was to cut the chambers out on each side, also to secure a solid bottom, and level the roof so as wedging could be properly done at top—that is, I was to remove any loose stuff lying about, and to level the bottom off to a solid face. I was to get red-pine timber from the mill, 6 by 6, as far as I remember. I was to put these logs in ends going into the chambers, and to caulk the ends tightly so that no water could get through.

103. How high were you to build them?—To the roof.

104. How were the logs to be squared at the mill?—The chambers were to hold them in the ends, and there were to be three props—uprights—to be sunk in the solid rock in the floor, and fixed in the roof so that they could not shift when pressure came.

105. How far was this log wall to be from the stopping?—6 ft.—that is, on the outer side nearest the entrance—and each log was to be put on so as to be securely packed with clay 6 ft. I may say that I did not know whether Mr. Tennent understood that we were to build all the logs in without cutting.

106. What did he instruct you to do?—I understood that the last two logs were to be joined, and that the middle prop was to be secured and fixed so that the joints of the last two logs would go against it. When the last log was in there would be a space left between that and the roof, and this was to be properly wedged. There was to be a piece of canvas inside each log to be nailed on covering the joint. On the top of the canvas a 4 by 1 batten was to be nailed. The ends of the logs were to be properly wedged with wood if there were any openings between them and the rock.

107. How did you get your canvas over your top log?—The last log would not have any canvas over it. The top log was wedged with fitted wedges. The finishing was done with wedges. The pipe was put through to carry the water from the mine. It was put on the right-hand side coming in, about 8 in. or 10 in. above the bottom rock.

108. What sort of a pipe?—A round pipe.

109. What was the size of the pipe to be?—They were called 5 in. cast-iron pipes.

110. Were these all the instructions you received from Mr. Tennent in connection with this dam?—I believe so.

111. *The Chairman.*] Mr. Tennent gave you all these instructions in connection with the dam?—Yes.

112. Before Mr. Tennent gave you all these instructions did he ask you whether you were willing to do the work?—Yes; he asked me whether I thought I could carry out the instructions.

113. What did you say?—That I would endeavour to do my very best, implying that I could carry it out.

114. How were you to be paid for it?—He told me that they had got £20 to do this work. He said he had got it from the company. He said, "It might not take £20, and it might take more; but, at any rate, you make a good job of it, and you will get paid." If I had spent £60 under this arrangement I should have held Mr. Tennent responsible.

115. *Mr. Harden.*] Did he say anything as to whom you should employ?—There was one whom he prohibited. We spoke about Mr. Martin, and he said, "If you let Mr. Martin do it he could do it very quickly, but I would not guarantee he would do it very good."

116. What were you discussing at the time—as to whom you were to get to do the job?—We must have been discussing Mr. Martin to bring his name in.

117. Did you tell him then whom you would employ?—Not that I remember.

118. *The Chairman.*] Was that all he said about Mr. Martin?—No; I think he said something about Mr. Martin fitting the timber in the other stoppings. He said, from what he had seen of the timber in the stopping, it was very badly fitted.

119. *Mr. Harden.*] Was that all that was said at that particular time?—Yes.

120. Did you proceed to construct the dam?—Within a few days from that time I went to build the dam.

121. Did anything happen in connection with the dam in the meantime?—Not so far as I was concerned. I had not begun the dam. I might have talked about it to a few individuals, and arranged to get some one to do the work; but when I went to do the work I was instructed that they could not go on with the dam. I was stopped from building it.

122. By whom were you stopped?—Mr. Roland Broome. He sent word that I was not to go on, as he had no authority, and he would not take instructions from the Inspector.

123. Was Mr. Roland Broome representing the company at this time?—As far as I knew, he was. I saw him afterwards, and I quite considered I had been appointed to do it as far as Mr. Tennent was concerned.

124. When did you order timber from the mill?—Before I commenced to do anything about it at all. I went to the mill, and said I wanted timber for the dam, and that the Government would be responsible.

125. When Mr. Tennent left you you said you went to work at the dam a few days afterwards?—When Mr. Tennent left me I ordered timber from the sawmill.

126. Then you went to the dam and started constructing it?—Yes. I was only clearing the stuff away from the bottom to see what it was like in order to get a compact place. It was at that stage I was stopped.

127. By whom were you stopped?—By Mr. Roland Broome, through Mr. Martin.

128. Mr. Martin must have told you?—Mr. Martin came and told me that I could not go on

with it. Mr. Martin said that Mr. Broome had told him to tell me. I saw Mr. Broome that day on my way home.

129. What occurred between you and Mr. Broome?—I told him I had arranged with Mr. Tennent to build the dam at this end of the tunnel for the purpose of flooding the mine, and that I had ordered the timber. He said, "I will take no instructions from the Inspector. I have no authority to go on with it." Then I went away and countermanded the order for the timber.

130. Did Mr. Broome say anything about getting authority?—I could not say whether he told me or not. On account of him stopping me I did not feel very well pleased with him.

131. Did you see him afterwards?—Afterwards Mr. Broome told me that Mr. Martin and I could go on with the dam.

132. How long afterwards was that?—A day or two.

133. Did you see Mr. Martin?—Mr. Martin was with me nearly all the time. We were working at a contract to put up timber in a tunnel.

134. Did you proceed then with Mr. Martin to construct the dam?—Yes.

135. What timber did you use?—The company's timber.

136. What sort of timber?—Some of it was pine and some birch.

137. Was it square or round?—It was sawn timber, but of different sizes. It was not a uniform size.

138. *The Chairman.*] Why did you not get the mill timber?—I had no authority. Roland Broome told me to use the company's timber.

139. *Mr. Harden.*] Did you get a good solid piece for the foundation log?—In my opinion, I had a perfectly solid foundation for the first log, which was an 8 by 6 log as far as I can remember.

140. Was it properly fitted in at the side?—Yes; and very level along the floor—so level that I could scarcely put a knife between it and the base. It went extending from chamber to chamber, as all the other logs would have done had they been mill logs.

141. Did you construct the dam strictly in accordance with the description given to you by Mr. Tennent?—No.

142. In what way did it differ?—The timber would not allow me to construct it in the same way. I could not put the 4 by 1 on an irregular surface. The outside was kept smooth and regular, but the inside was not. We put in the canvas.

143. How did you square it?—With clay. Where the two planks were not the same size we had to do it with clay—to just pack it in.

144. *Mr. Harden.*] Were there any other differences in construction?—I did not go so far up with my horizontal logs—*i.e.*, I did not construct the dam so high up with uncut logs. I had more joints in the logs.

145. How many logs were cut?—I think there were three or four logs that were not cut in the bottom; all the others were cut. They were all straight joints except the top log. The last two or three were cut, and the last was cut in three.

146. Would these joints be against the upright?—Yes, but not all against the same upright. I only say definitely that the last was cut in three.

147. When this dam was completed who paid you for it?—Mr. Roland Broome.

148. *The Chairman.*] Did you give him a bill?—No; he arranged to pay us.

149. How did he pay you?—He gave us £20.

150. Did he make any bargain with you?—Yes; he contracted with us for £20.

151. Who was it with?—I understood it was to be between the two of us. Mr. Broome said, "You and Martin had better take this job on, and do it for £20. That is all I can get for it."

152. How long did it take you to do it?—Roughly speaking, a fortnight.

153. How many men had you working?—There were Mr. Martin, John Clark, myself, and two others.

154. You had three wages-men employed?—Yes.

155. All the time?—Not all the time.

156. What did it cost you in wages?—I think it only ran to the wages.

157. Were you and Mr. Martin working at the dam at the time it was being constructed?—Yes.

158. Did it make wages for the whole five of you for the fortnight you were working at it?—Yes, I think so, as some of the men worked only a day or two.

159. If you used the company's material it cost you nothing?—It cost us nothing for material.

160. When you first of all received instructions from Mr. Tennent did he tell you what the work was for?—Yes; it was to flood the mine. We knew perfectly well what it was for.

161. When you and Mr. Martin received instructions you understood that the dam was for the same object?—Certainly I did. It had been talked about so much.

162. What happened when the water was turned on?—When the plug was put in the pipe which carries the water through, the water ceased running. I visited it four or five times after that time. The second Tuesday in April I was there.

163. How long had you finished it before the second Tuesday in April?—Three weeks, roughly speaking.

164. Did it hold water for three weeks?—I never saw it leaking so much as would amount to the water which was coming out of the mine before its construction. It was leaking, but not on the second Tuesday in April.

165. *The Chairman.*] You started it about the 24th February?—About that.

166. It would be finished about the end of March, would it not?—Yes, easily before that time.

167. Did Mr. Tennent go and see it before it was finished?—Not that I know of. He could not see it without my knowing it.

168. Did you tell Mr. Broome it was finished?—Yes.

169. *Mr. Harden.*] That was when you got your money?—Some of us told Mr. Broome it was finished, and he paid us.

170. This 5 in. pipe was in the dam, and open?—Yes.

171. When you were paid?—We had it plugged up before we were paid.

172. How long did it remain plugged?—The plug was taken out some time when Messrs. Shore, Alison, and Foster were here.

173. It was not taken out until then?—No.

174. How long was it after you had got paid that it began to leak?—The first time I saw it leaking was after it was plugged up for a few days.

175. How long a time was it after you had plugged it that you next saw it?—About three days after.

176. Where was it leaking?—At the top of one of the uprights at the extreme top of the dam.

177. Over the top log?—I consider it was over the right-hand upright. Water was coming round the right-hand side of the upright.

178. Was it leaking anywhere else?—No.

179. Did you take any steps to stop that leaking?—No.

180. Was it leaking much?—Not to a great extent.

181. When did you next see it?—Say, in another two days.

182. Was it leaking then?—Yes, not much.

183. Where?—At the same place and at another prop—the middle one.

184. At what part?—Near the top log.

185. When did you next see it?—Say, in another three days after that.

186. Was it leaking then?—Yes.

187. Where?—Along the top—nearly right along the top. There was a bit at the top where it was not leaking.

188. When did you see it next?—On the second Tuesday in April.

189. What was its condition then: was it leaking?—No; it was dry then.

190. Then you concluded it was sound?—Yes.

191. And holding the water?—Yes; I saw no water coming through, and concluded it would be sound.

192. When did it start to leak badly?—I was at Granity, and did not hear anything about it.

193. When did you leave for Granity?—On the second Wednesday in April.

194. How long were you away?—Three weeks exactly; and when I came back it was certainly leaking badly, and I heard at leaving Granity it was leaking badly.

195. Where was it leaking then?—All over, particularly at the bottom.

196. Did you examine the bottom?—Yes.

197. What was the condition of it?—It was not the same as when I left it. I could get my hand underneath the bottom log, about the centre. It was leaking round about the water-pipe as well. I should have no hesitation in saying then that it was no good for holding water.

198. Were you working there after that at the dam?—Yes; I examined it, but left it, and reported to Mr. Tennent that it was no good.

199. *The Chairman.*] Did you do any work at all at it?—I did clear it to see where the water was coming through.

200. Who asked you to do that?—Mr. Tennent.

201. When did he ask you?—I think it was the 2nd May.

202. *Mr. Harden.*] Did you return here?—I had come up with him from Granity; he asked me to go and look at the dam, as he could do nothing with it.

203. Did he tell you the condition of it?—He was with me at the time. He and I visited it. We came up in the train and went up to the dam.

204. Did he say anything in the train about it?—He told me that it was leaking, and that Mr. Martin had been trying to fix it up. Then he asked me to have a look at it carefully, and see if I could do anything with it. I cleared out the stuff and found a hole.

205. Did you do anything at all to it?—No.

206. When did you do this?—I think it was on the 2nd May when I came with Mr. Tennent.

207. Had Mr. Tennent left when you discovered this hole?—I think so.

208. When did you report this condition to him?—On the Thursday.

209. And what was done in connection with it?—It was decided to abandon it altogether as useless, and to put in a new one.

210. Before you left this dam did you expect it to hold water when you built it?—I did.

211. And did Mr. Martin?—I could only suppose that he did. We were discussing how long it would take to rise, to go up the other side of the mine and to flood it. I think he said it would be five weeks, and I said it would depend upon the weather. That is why I think he thought it would hold water.

212. Did he express any doubt about the matter?—Not to me.

213. It has been said by Mr. Foster that you told him that Mr. Martin had tampered with the dam?—I have no recollection of saying such a thing.

214. Had you any ground for supposing that Mr. Martin had tampered with it?—Certainly not.

215. Do you suppose now that he tampered with it?—No, nor did I have any reason to do so.

216. Before the 28th January where were you in the mine?—All parts, including the part where the fire was afterwards discovered. On the 9th October I examined it before the Inspector came to go through it.

217. Was there much smush or slack about?—At places there was a good deal of slack or smush. At the corners of the pillars there was a good deal of coal which had fallen.

218. Was there much at the part which was discovered to be on fire?—No.

219. What was the road there like?—It was good, and not blocked up in any way.

220. What was the practice in the mine with regard to smush?—Smush means the small coal. The small coal was taken out and sent down with the ordinary round coal.

221. What about the waste or stone?—About four or five years ago there was a considerable quantity of stone left in the mine, but the greater part of it was since filled and sent out to what is called the bins. It was given a fairly good cleaning-out about three or four years ago.

222. How long have you been working as a deputy?—At the Cardiff I was three or four years before they closed down.

223. Were you ever made acquainted with the fact that the Inspector was about to visit the mine?—No. The last time he visited the Bridge section when I was underviewer I did not know he was there until he was right through the mine to the bridge. I did not even get any communication from the office-men that he was at the office here. We had the telephone from the office to the bridge.

224. Then it is not a fact that you were always advised of his visits in order that you may get things in order for him?—No, I was never advised of his coming.

225. *The Chairman.*] When did you start the new dam?—I do not know the exact date. Some time in June or July we started the new dam under Mr. Tennent's supervision. This was a log dam backed up with concrete. It was finished on the 9th August. It was finished and the pipe was closed up, and the water has risen right through the mine and gone out at the Bridge section.

226. Has the dam been effective?—Yes; it has flooded the mine to the bridge. There is another dam put in at the bridge, of concrete, iron rails, and flat sheets.

227. Was that made under Mr. Tennent's supervision?—It was put in by his order.

228. Where?—At the bridge end of the mine. There was about 5 ft. of water up the dam when I was there on Saturday last, the 26th January.

229. *Mr. Lomas.*] How high is the dam?—It is about 8 ft. high, and water about 3 ft. from the top. It is proving effective.

230. *Mr. Corby.*] You have been underviewer, and I want to know how many faces of hard coal you have left in the mine?—I consider there are four in the Bridge section clear of the fire section.

231. And how many soft faces?—Say twenty.

232. How many men could you employ getting out coal when you closed down in working the soft coal?—Between fifty and sixty.

233. How much coal do you think remains there to keep that number of men employed?—I understood Mr. Broome to say that it would be a year-and-a-half's work there without closing up.

234. In view of the fact that the fire has destroyed the tunnel, is there any show of working that coal in the near future?—You will have to get a new way in, in order to work it. You could not get to work through the fire.

235. Is there any road that could be made to make it profitable?—No, I do not think so.

236. Then, through the fire you reckon that the coal is lost?—Certainly.

237. When you and Mr. Dixon decided to stop working at the fire on the 2nd February was there any difficulty in the men bratticing off the faces between the main road and the fire?—How to get at the last one would be the trouble. We could get all but the last one sealed. That would be the only troublesome part of it. If the fire or smoke did not come out there would be no bother whatever.

238. There would be no difficulty at the time in saving the plant in it?—If they could have taken it out with them there would have been no difficulty.

239. If Mr. Dixon considered the fire very serious, as the report states, do you think he had a right to try and save as much as he could, and to protect the roadway, until Mr. Tennent came back?—In my opinion, it should have been gone on with. Of course, I do not know Mr. Dixon's opinion.

240. Was it not easy to do something then when you went in and saw it on the 5th?—Certainly; you might save some rails.

241. After putting the fan on Mr. Dixon did nothing?—No; there was strict orders given to seal it.

242. When you went in on the 5th February with Mr. Dixon and Mr. Tennent could you not get further up than when you put the dam in at No. 1?—When we went up first we were up as far as the middle curve. I do not think we could put a dam in there.

243. How many men do you think could be employed in Cardiff altogether getting out steam-coal daily?—There could be fifty employed in the Bridge section, and three pairs in the long jig.

244. None round the pillars?—It would not be safe to pillar near the road. The North block was opened up, but it was no good. There is a tunnel there of about 3 chains, and I say the stuff taken out was tipped into the slack-bin.

245. Was there not good steam-coal in Chasm Creek?—That is on the North block. That is good steam-coal. It is pillared between that and the main entrance.

246. Do you think you could send out 500 tons of coal at the time you closed up if you had received orders to supply steam-coal?—Yes, if we worked several places double shift.

247. Do you think you could send out more?—We did not have the appliances to send out more.

248. Do you think it was wrong to say there was no coal of any commercial value which was lost by the fire?—In my opinion, it would not be the correct thing to say there was no coal; but the coal would not have been suitable some years ago. It might do now.

249. Regarding the dam, there was an insinuation made in Wellington with reference to myself: did you ever see me at the mine in company with others in the middle of the day?—I never saw you there except once without some one in authority, and I would not insinuate anything.

250. Do you think I was anxious, for the good of the district, to have the fire put out?—That was the impression conveyed to me.

251. Do you think I had any antagonistic feeling towards Mr. Tennent then or up to the present time?—You did not show it to me if you had, so I do not think you had.

252. Mr. Tennent employed Mr. Martin to caulk the dam after it was leaking first?—I understood so.

253. When Mr. Martin was caulking the dam the first time it was leaking at a prop?—Yes.

254. And then it leaked heavier all over the top?—Yes; it leaked until the second week in April.

255. Was that before Mr. Martin caulked it?—Yes. Mr. Martin was caulking it at the end of April.

256. When Mr. Martin caulked it it was only leaking at the top?—Yes.

257. It was only when Mr. Martin caulked it at the top that it broke out at the bottom?—Yes, I was so informed.

258. Do you remember when I was up with Mr. Martin, when he was caulking, and I argued that there was no water stopping in as there was none going in?—Yes.

259. Do you remember my making the remark that when the rain came there would be more coming out than in the dry weather?—I dare say you did say that; but I have seen that water in the tunnel when the rain did not make any difference to it.

260. Do you think now it was possible on the first plan Mr. Tennent gave you to build that dam to stand against a pressure of 60 ft. or 70 ft.?—I did then.

261. You would not undertake to build a dam of the same dimensions now with that pressure?—I would not undertake to build a log dam where there was a pressure of 70 ft.

262. You remember Messrs. Alison, Shore, and Foster going there?—Yes.

263. You heard that they recommended that this dam should be shifted back to No. 4?—There was a recommendation given by them of that kind, I believe.

264. Do you think Mr. Tennent was attempting to give effect to their recommendation when you were putting the dam up the last time?—He made an attempt. He cut away through the dam and the logs in the stopping, and went through and saw the tunnel fallen down, and I consider that stopped him.

265. How much do you think it would cost him to put that dam there?—According to the last way it was constructed it would have required the fan to carry it through. We required the fan to give us ventilation to do that according to the construction of it.

266. Then, the stopping you erected at first must have been defective?—No; black damp comes out with the water, and without fresh air you would be unable to erect it according to last design.

267. What was the appearance of the tunnel when he took down the stopping before you erected this last dam?—We simply cut away the two places to get in, and it was filled up with stone, silt, and timber. The stones were too large for any two men to move. I do not know how they came there.

268. You do not know to what extent they were there?—No, because it was closed right up to the roof.

269. Was the water flowing so that you would not expect to find much water behind it?—I would expect the tunnel to be full for some considerable distance back.

270. Do you think it was practicable to clear that tunnel back to No. 4 and erect the dam there?—It was possible to do so, but I would not like to be one of those working at it.

271. Were you instructed by Mr. Tennent to give no information to any one while you were working there—not to divulge what you were doing?—That was the condition of things I understood—not to say what I was doing.

272. *The Chairman.*] Is that the condition under which men work in all coal-mines?—Only in some cases.

273. *Mr. Corby.*] Had that been the case before?—Not under Mr. Broome. I had not received any such instructions from any one previous to that.

274. You said that when you were going up to the fire the air was so very bad: did Mr. Dixon tell the men to stop at the tunnel and have a rest?—Not at that particular place. Mr. Dixon withdrew us and had a smoke. We came out the air-course some distance away from the fire.

275. Did you approve of the recommendations made by Messrs. Shore, Alison, and Foster?—I do not know what all of them were.

276. *Mr. Harden.*] Do you know the 2 in. pipe that was put in by Mr. Tennent's order?—Yes; it leads to the fire-line from what is called the Cascade Creek.

277. Do you know the Cascade Creek well?—Yes.

278. Will the Cascade Creek supply water steadily for more than a 2 in. pipe?—No. For weeks at a time it would not keep a 2 in. pipe full. Sometimes it was not half full. In fact, I have wired to Mr. Tennent that the water-supply was very low there; and sometimes it was not enough for a $\frac{3}{4}$ in. pipe.

279. *Mr. Martin.*] How did Roland Broome come to have the dam built?—He simply told you and I to go and build the dam.

280. Have you any witness who can say that Mr. Broome told you that he would not take any of Mr. Tennent's orders?—I have not. I spoke to Mr. Broome, and told him I had ordered the timber, and that it made me look a little small to have to countermand the order.

281. Did not Mr. Broome say, "You two had better build the dam, and use the company's timber"?—Yes, those were the words as near as I can remember.

282. On the 1st May do you remember my asking you to go with me and carry the boring-rods back?—In the first days of May you did.

283. Do you know what we used those rods for?—Yes; that was after Messrs. Shore, Alison, and Foster had these pipes opened. They cut part of the dam away and let the water through Under their instructions I pulled the plug out of the pipe.

284. *The Chairman.*] Do you know much about the coal areas in the Mokihinui district?—No.

285. Do you know of any other coal-bearing country besides that held by the Cardiff and Mokihinui Companies?—No.

286. You know of no other area that would be worth taking up here?—No.

287. *Mr. Lomas.*] How long have you been a miner?—Eleven years on the West Coast.

288. You have not been brought up to mining from your youth?—No.

289. Have you had any experience with fires anywhere else?—No, not extensive ones.

290. Was the man Beirne, working at stripping the coal, left between the heading and the fault?—Between two headings; he was stripping a fault, practically. There was a heading beyond it.

291. Would you consider there was any undue danger in stripping a fault of coal?—No.

292. Is not the roof generally very rotten about a fault, and full of what we call "pot-holes"?—Yes.

293. Would you not consider that dangerous?—Yes.

294. Is not the roof always rotten about a fault?—We did not see the fault here. It might be certainly bad.

295. Did the place fall through when you took all the timber out of it?—No; it was standing the last time I was there, when the water was coming up to it.

296. Have you any idea of the amount of coal left in the mine?—There cannot be very much.

297. Were there any pillars left?—Practically none.

298. Suppose the coal there had belonged to the company instead of to the Government, do you think the management would have tried to get the coal out, supposing they had had to pay for it?—I do not think they would.

299. With regard to the dam you were building, you said there was no one in charge of the mine: were you working under the direction of Mumm, or was he working under the direction of you?—I was under the direction of Mumm.

300. How comes it, then, that you directed the men?—I got the men for each shift to work for Mumm. I did not direct the men.

301. How long before the fire happened had you seen that particular part of the main drive that you say has now fallen in behind the log dam?—On the 9th October.

302. Did you examine that part of the mine then?—Yes.

303. Was it all safe at that time?—Yes.

304. To what did you attribute the cause of the place falling in?—I do not know.

305. You have no idea?—No.

306. Do you think the big stones which came out of the stopping would come from the roof?—I was inclined to think they would come down with the water.

307. Where from?—From behind. There was a good bit of stone in the tunnel.

308. They would not be loose in the mine?—No.

309. Then, where did they come from?—They must have fallen through, because afterwards I discovered that there was a subsidence at the top.

310. Did you ever see any fire in the main heading after the first fire?—No.

311. Did you never see fire in the main heading?—Yes; when I was with Mr. Tennent.

312. Did you say the bords were sealed up?—Yes.

313. How do you account for the fire getting into the heading if it was sealed up?—The bratticing would be simply burnt down.

314. You said you could see no advantage of putting in bratticing in the bords right and left of the main heading?—Not with the air going with us.

315. Would not that have prevented the fire spreading?—I do not think so.

316. You said Mr. Tennent instructed you to construct the first dam that was built?—Yes.

317. Were the same instructions repeated to you by Mr. Broome when you put it in?—Roland Broome gave me no instructions at all.

318. When you were working the dam had you no difficulty with the air?—It was none too good. We worked at it every day, but not for a complete day. We were not pushed or working very hard. We had been knocked off one day for about six hours, and we were not fit to go any further.

319. Which side were the props on?—On the mine-mouth.

320. Did Mr. Tennent give you instructions to put up three props?—Yes.

321. Do you think it possible to put in the whole of the logs there with three props to the roof?—No.

322. What is the difficulty?—The props would be in the way—you could not get past.

323. Where did you receive the water from for the pipes you put in the stopping?—It was picked up off the floor of the tunnel.

324. Did any water go through that stopping on to the ground between where you put in the dam and the stopping?—No; it came through the stopping-pipe into the dam-pipe.

325. You really put one pipe into the other?—It was fixed up on the other which came out of the stopping.

326. Was the ground dry between the stopping and the dam?—Yes; there was no distance between the stopping and the dam. It was all one, and was perfectly dry.

327. What size was the opening that you had to plug at the last log up to the roof?—An inch and a half.

328. Was it the same size all the distance?—It was thicker in the centre. It was an inch and a half in the centre, and a quarter-inch at the sides.

329. Do you think the canvas put behind the logs would have been better in one whole piece, or in strips?—I think it was better as it was. It would have been in the way to have put it in in one whole piece.

330. What was to prevent the bratticing being hung in front of the dam before you put your bed log in, so that it would hang mostly down in front?—We had the clay to put in.

331. *Mr. Lomas.*] Were there more than two sizes of timber?—There were three different sizes. The first was 8 by 6, the next 12 by 5, and the other 8 by 3.

332. The 8 by 3 was on the edge?—Yes; putting them together it was 8 by 6.

333. Do you think it was impossible to make a good dam with that class of timber?—Not a first-class dam.

334. Did you know that Mr. Martin was working for the company?—Yes.

335. Did he prove himself a good tradesman by the work he did for the company?—My opinion is that he was a good workman, but was sometimes in too much of a hurry.

336. Was he in too much of a hurry in putting this dam up?—No.

337. Do you think he did his work efficiently?—Yes; but there was a defect in the top log.

338. Did you point that out to him at the time?—I do not think I did. I am not sure.

339. Were the three props still standing when you visited the place again?—No; Mr. Martin had shifted them, I believe; but they were put back again.

340. Was the centre prop in the centre place?—I do not think it was there when I came back from Granity.

341. Did you examine the bottom log?—No.

342. How do you account for the hole in the bottom log that you spoke of: were the big stones coming out?—It must have worked out with some big explosion. I do not think it was caused with the pressure of water.

343. What position did you occupy when you visited this dam four or five times?—No position, except that I was interested because I had built it.

344. You were not employed by the company?—No.

345. You went in without any permission from any one?—I just went in to see how the dam was. The caretaker knew I was going.

346. The last dam, I understand, was erected after the mine had fallen in?—Yes.

347. Then, really there would not be much pressure upon this particular dam owing to the amount of *débris* beyond the first stopping—there would only be the pressure from the fall?—There was a strong barricade of stuff which had fallen in.

348. There would be practically no pressure?—No.

349. In travelling through the mine you said you had seen a lot of coal lying at the sides of the roads: did you ever draw Mr. Broome's attention to that?—No.

350. Was there much coal lying about in the mine when you were employed as deputy?—No.

351. You told us that up to three years ago everything was cleared up out of the mine?—Yes.

352. What was done to it after that time?—The greater part of it was brought out.

353. Was it the habit of the company to have it brought out after that?—I think it was at the discretion of the men whether it was taken out or not, but there was very little left in after it was once cleared.

354. *Mr. Proud.*] Before the 28th January did you ever see any indications of fire in the mine?—I saw a fire at the top of the dip, but that was caused by an engine.

355. You never saw any smudge smouldering?—No.

356. When you were so near the fire what was there to stop you trying to extinguish it?—We could not get up on account of the smoke. We got within about 15 yards of it.

357. Was much coal lost in working the pillars in the Cardiff Mine?—Not a great deal. Some men lost a great deal, and some lost very little.

358. Do you consider Mr. Martin is a skilful workman at his trade?—I should say, middling.

HENRY BELL, Miner, examined.

1. *Mr. Corby.*] You were with Mr. Dixon when the fire was located at the Cardiff Mine?—I was.

2. Were you with the other men when the fire was first discovered?—I was. Mr. Dixon and Mr. Mitchell went ahead to locate where the fire was, and myself, John Bain, and John Clark were the three men closest to them.

3. What was the fire like when you saw it?—It looked to me like a fairly good-sized fire in a grate.

4. Was there any flame?—There was no flame about it, only coal.

5. How near did you get to the fire?—I should judge from where we saw it first would be about a chain, or thereabouts; but some of the men were much nearer afterwards.

6. Do you think that they got within half a chain of the fire?—I think they must have done. Mr. Dixon and Mitchell set Bain, Clark, and I on to stop off a stenton with some brattice-cloth to the right of the heading, and the other men were sent to bring in a return of air. I was started to

put in a dam to stop the water from coming through, which left me to infer that it was their intention to take up water to put the fire out.

7. *The Chairman.*] How far from the fire did you put the dam across the drive?—About a chain. The other men were much nearer.

8. When the fire flamed up after the fan was put on, if the draught had been taken off, would there have been any danger to the men bratticing off the drives in the main tunnel?—Not a bit. There was nothing to stop men working there unless the air was made to go in one particular direction. With the appliances in use then there was no possible danger to the men. In the first instance, when we went into the mine, we went a considerable distance past where the fire was located. There was no effect except the warmth of the fire in the air.

9. *Mr. Corby.*] If Mr. Dixon had continued the work at the time he knocked off, would there have been any difficulty in the men saving the plant along the main tunnel?—I have no hesitation in saying that a considerable amount of property would have been saved.

10. Would there have been no danger to the men in doing so?—Not the least.

11. Did Mr. Dixon consider the fire was too great to try and put it out?—I never heard him say anything.

12. You knew it could be stopped off the main road with safety to the men, and that the plant could have been saved if he had stayed?—Yes, at that time.

13. Did you form any opinion from the action taken then that Mr. Dixon did not want to put the fire out, and that there was some ulterior motive for delay in suppressing the fire?—I would be rather loth to believe it of the gentleman in charge; but still, owing to the laxity of duty shown, I am inclined to believe there was something at the back of it.

14. *Mr. Stewart.*] You mean owing to the want of energy displayed?—Yes.

15. *Mr. Lomas.*] Where was the fire when you saw it?—It seemed to me about the centre of the heading.

16. It was not burning against the pillars at all?—No.

17. You said you erected a dam with slack: where was that?—About three-quarters of a chain into the heading where the fire was located.

18. Was there much slack there?—I could have gathered about half a dozen boxes if I had chosen, lying about the road.

19. What was it doing there?—It was proposed to use it for packing the road.

20. Do you know whether there was any slack lying about where the fire was?—I could not get close enough to see.

21. Did you ever see a fire burning in the main heading?—No. I worked at the beginning of the Cardiff Mine when it was not so big as it is, so far as the opening-up is concerned.

22. Did you see any fire at the main heading at all at that time or any subsequent time?—No. The last time I passed through was three or four days before the fire was discovered.

23. Were you in this particular part where the fire was discovered?—No. I passed within 2 chains of where the fire was discovered.

24. Was there much of a current of air?—Yes, there was a good air-current.

25. *Mr. Proud.*] How long was it from the time you went through the mine until you saw this fire?—I was in on the Wednesday previous. I first saw the fire on the Friday after the 28th.

26. Do you think that by carrying buckets of water you could have extinguished the fire at that time?—It looked to me as if a couple of buckets would have extinguished it; but still one did not know the extent it might be beyond that.

27. Was the air good enough?—Yes, the air was good.

28. *Mr. Lomas.*] Do you think you could have got to the fire yourself?—I think so; but one is rather chary about doing that sort of thing when others are in charge.

29. If you had taken the brattice nearer to the fire could you have got in?—I would have been rather more inclined to go near the fire without the brattice. It blew out into flame as it was. Mr. Dixon then ordered all the brattice to be torn out.

30. *Mr. Proud.*] If you had had a long rake could you have raked the fire out?—That I could not tell, as I was so far behind. The other men putting up the brattice worked much nearer, and I should think would be about half a chain from it. I took it that the water was intended to be thrown on the fire.

31. You never saw any indication of the fire smouldering for some time?—No; they were working through all the broken workings up that way, and smoke would be coming from the surface.

32. Did you notice any timber at the time it was burning?—No.

33. Had you been up there before?—Not up to that distance. Mr. Mitchell or Mr. Dixon, when they located the fire, passed the remark that they were very lucky in finding it so soon. Which of the two said that I could not say. They went up much closer to have a look at the fire.

PETER MARTIN re-examined.

1. *The Chairman.*] Was the pipe in the dam put under the bottom log?—Yes, through the bottom log. First the bottom log was put in; then we scooped out the top of the bottom log and put the pipe in.

2. What size was the bottom log?—It would be 8 or 9 by 12.

3. What size was the pipe?—What we call a 6 in. cast-iron pipe.

4. *Mr. Corby.*] You heard Mr. Tennent say that he did not want you to be employed in building the dam?—Yes.

5. How was it, then, that he gave you a job in caulking it again?—I do not know. My opinion is that he had a "set" on me from the day he arrived at the Cardiff fire, and he gave me an answer that night that I took exception to.

6. What reason had you to think that?— When Mr. Tennent and Mr. Mitchell came up about 8 o'clock that night I told Mr. Tennent about Mr. Bayfeild getting some brattice-cloth up by Monday morning's first train. I knew there was none, because I had the run of the Cardiff stores. Mr. Tennent asked me shortly what I wanted that brattice for, and by the way he spoke I thought he had a "set" on me from the first.

7. *Mr. Lomas.*] Did you arrive at that conclusion then or afterwards?—Then: he spoke so very short.

8. *Mr. Harden.*] Who engaged you to construct the dam?—I was never engaged to construct the dam, straight speaking.

9. How did you come to go to the work?—Mr. Mitchell told me what had happened between Mr. Tennent and himself. He told me there was £20 going to be allowed for this dam, and he and I were going to build it. That is what he allowed me to believe. That was on the Saturday night. On Monday morning I and Mitchell had the timber in the intermediate tunnel. I went down that day, and asked Roland Broome about this dam. Roland Broome said he knew nothing about the dam, and had no authority. He said he would ring up Mr. Bayfeild by-and-by and inquire about it. It seems he had no authority about it until Tuesday, when about midday he came up to the tunnel and spoke to Mitchell and myself, and said, as far as I recollect, "You had better go on with the dam."

10. Who paid you?—Roland Broome passed the money over when Mitchell and I were finished. That is all I know about the dam.

ROBERT JENKINS, Miner, examined.

1. *The Chairman.*] With whom were you working at the time of the Cardiff fire?—I was working with Mr. Martin about May, 1900, in removing machinery from the Cardiff Mine down here (Seddonville) by contract.

2. What do you wish to say?—Mr. Tennent came up and wanted Mr. Martin to carry out some works for him. Peter Martin engaged me on behalf of the Government, as he was left in charge. I worked five days and a half for Mr. Martin on that work, and one among other things we were to do was the caulking of the dam at this end of the tunnel. I and another man named Smith, with Martin, started caulking at the top of the dam. It was badly leaking, and as we stopped the top of the dam it would force out lower down until we got to the bottom. Then a big stream forced out at the bottom. For all we could do then we could not succeed in stopping it. That is all I can say about the dam.

3. *Mr. Martin.*] Do you remember Mr. Tennent coming up and we knocked off the work?—Yes.

4. How did he act?—He brought Mr. Mitchell with him. He never said anything to you all the time.

5. *The Chairman.*] When did Mr. Tennent bring up Mr. Mitchell?—It would be some time about the beginning of May after we had finished caulking the dam. He went over with Mr. Mitchell, and did not tell Mr. Martin that he had done with him. We did not know whether we were discharged or not. I then went on working with Mr. Martin at his contract for getting out the machinery. I had been working there several days when Mr. Tennent came up again. In the evening, when I had finished the day's work with Mr. Martin, Mr. Tennent and Mr. Mitchell called me and asked me if I would leave Mr. Martin and work for them in cutting out the chambers of a dam in the tunnel. I said, "Mr. Tennent, it is like this: I have a month's work with Mr. Martin, and I don't care about leaving a month's work for perhaps two or three days or a week." He gave me then to understand I would be there for more than a month, as there was the cutting-out of the chambers, and when that was done there was the putting-in of a dam at the other end. Then I left Mr. Martin to go on again for Mr. Tennent. Four days afterwards we got notice to cease work.

6. *Mr. Martin.*] When we were working on No. 4 dam did you notice whether any dynamite was used by yourself, Smith, or myself?—There was none whatever.

7. Was any dynamite used by anybody else?—Dynamite was used by Mitchell in that dam that Mr. Tennent engaged me to cut out the chambers. I think that was the last dam made.

8. *The Chairman.*] How much dynamite was used?—We fired several small charges.

9. For what purpose was the dynamite used?—For cutting out the sides of the chambers of the dam at the right-hand side going in. That was all the dynamite that was used, as far as I know, with Mr. Mitchell. There were only two of us there.

10. When did Mr. Tennent take you away?—We were working for Martin. I was the one he took from the Government machinery-work.

11. *Mr. Harden.*] How long had you been working for Mr. Martin when he took you to do this caulking?—About a fortnight.

12. Was the dam constructed when you went up to work for Mr. Martin?—It had been put in before I went there.

13. Was the dam leaking then?—It was badly leaking when we went to caulk it.

14. Was Mitchell working at the caulking?—Not then.

15. When cutting out the chambers how far was that from the dam you caulked?—It might be three or four yards.

16. Was it ever constructed?—I could not say. I left after that, but I believe it has been.

17. You had nothing to do with Mitchell?—I was working with Mitchell in connection with the dam.

18. I mean on the dam you caulked?—Yes; I went to work with Mitchell after Martin left it.

19. *Mr. Corby.*] You are sure Mr. Tennent engaged you and Martin to do this caulking?—He left it all to Martin, and for him to pick the men.

20. Was it not before the caulking of that dam that the first stopping was put in?—It was in, but I was not there at all at the time.

21. You think it was the Government or Mr. Tennent that the money came from to pay you and Martin for caulking the dam?—I could not say where the money came from. Mr. Tennent gave him full charge.

22. *Mr. Harden.*] How do you know he gave him full charge?—I was there and heard it.

23. *Mr. Corby.*] You saw the water coming out previously?—Yes.

24. Was there much water coming out?—There was a lot coming out when we went to do it. I saw there was as much water coming out again after we had tried to caulk it.

25. *Mr. Lomas.*] Who was in charge of this work of caulking?—Mr. Martin.

26. Did Mr. Tennent come in when you were caulking the dam?—He came up the following Wednesday and brought Mr. Mitchell with him. We were caulking up to that morning. He looked at it and went on to the other end.

27. Were you at the other end when they came in?—No; we were at the office then.

28. Did you go in with Mr. Tennent?—No.

29. Was the bottom burst out at that time?—Yes.

30. Where was Mr. Tennent all the time the caulking was going on?—He was away. Mr. Martin was in charge.

31. Was it the rock that burst out?—I believe it was the packing under the pipe.

32. Was the pipe put under the bottom beam of timber?—Yes.

33. And the floor was cut out to put the pipe in?—It was round the pipe where the leakage was. The pipe was under the bottom piece of timber. I think there was only one pipe in that particular dam.

34. Was the dam broken at all?—It was sound, as far as I could see. I do not know whether it was bursting the packing round the pipe, because I could not get in to see it.

35. What kind of pipe was it?—It was a big cast-iron pipe, and plugged.

36. *The Chairman.*] What was the size of the pipe?—It would be about 6 in. I never measured it.

37. *Mr. Lomas.*] Had you worked previously in the mine?—Yes.

38. Up to the time it stopped?—Two or three years on and off.

39. Had you known Martin all the time?—I had known him as a workman in the carpenter's shop.

40. How long had he worked there?—Pretty nearly as long as the Cardiff Mine.

41. Had you ever heard any complaints about him?—No.

42. Do you think he gave satisfaction as a carpenter?—I think he must have done so, when they retained him all that time.

43. *Mr. Proud.*] What is your opinion as to the cause of the dam leaking?—I could not say, unless it was not properly packed at the back of the timbering.

44. *Mr. Lomas.*] Where was the principal water coming through?—It was coming down all the cracks in the face. We took out a prop and found it was leaking. That was in a joint. There was a lot of water coming through.

45. *The Chairman.*] Did you examine where the pipe came through?—Not minutely. We did all we could to stop the leaking round it.

46. Will you state as a certainty that the pipe was put under the bottom log?—I am not sure. As far as I could see from the mouth of the pipe, it was down further.

47. Will you say there was not a bottom log with another log on the top of that, which was then cut?—No; it might have been there, but it was not in view.

CHARLES MOUNTER JOHNSTON, Carpenter, examined.

1. *Mr. Harden.*] Do you know the first dam that was put in by Messrs. Martin and Mitchell?—Yes.

2. Were you ever working there?—Only at the dismantling of it.

3. Did you find any explosives there?—Yes.

4. What did you find?—Three-quarters of a plug of dynamite.

5. Where did you find it?—Underneath the bottom log.

6. At the side or the centre of it?—About one-third in of the drive.

7. Did you find any signs of explosion on the sides or at the bottom of the log?—I never examined the logs.

8. What was the nature of the ground at the bottom or bed-rock?—Broken rock.

9. *Mr. Martin.*] When you took out that bottom log where did you put the timber and the clay: is that at the mine now?—Outside.

10. Would you know the bottom log again if you saw it?—No.

11. Would you know any of the other timber if you saw it?—No; I could not swear to it.

[Certificate of character of Mr. Martin put in, as follows: "The Westport Cardiff Coal Company (Limited), Seddonville, 25th January, 1900.—To whom it may concern.—I have much pleasure in stating that Mr. P. Martin has been employed by the above company for the past seven years in the capacity of foreman carpenter. He is a skilful workman, quick and energetic, and thoroughly trustworthy and reliable. He has excellent ideas for carrying on heavy timber-work, such as bridges, bins, &c., and I have very much valued his services. His work with the company has been very varied, and he has proved himself an expert workman in all classes of timber-work required at the colliery; he is also a good hand at concrete-work. I can confidently recommend him to any one requiring a thoroughly good man.—GEO. H. BROOME, Assoc.M.Inst.C.E., Managing Engineer."]

12. *Mr. Harden.*] Do you remember how many tubs of broken rubble rock you brought it?—We brought out about four or five from the bottom.

13. Did you consider the ground was broken by the action of water or by some explosive?—By an explosive.

14. For what reason?—Because the water would not affect the rock—it would be too solid.

15. *Mr. Corby.*] What were the dimensions of the bottom log you took out?—6 by 8, I think.

16. Do you think it was possible for an explosion to be fired underneath a 6 by 8 log to supply four or five loads of stuff without showing the effect of the explosion upon it?—Yes.

17. *Mr. Harden.*] Why do you think it would?—Because it was solid on the top, and, the log being hard down, the dynamite would strike in the weakest place as well as downward.

18. *Mr. Corby.*] Are you not aware that dynamite strikes all round with equal force, and that it would be impossible without breaking or damaging that log so that it could not be lifted without being detected?—Dynamite strikes in the weakest place, according to my experience.

19. If you put a drill-hole in rock so as to dislodge three or four loads of stone, must not the explosion give force enough to injure a piece of timber like that?—No.

20. If a shot were put in between the stone and a stick which would go first, the solid rock or the stick?—The stick, if on top, would be shattered to pieces.

21. You consider that whoever tampered with it had to put a hole in the bottom of the rock underneath before putting in the charge?—Yes, it was put through underneath the rock.

22. *Mr. Lomas.*] Have you had any experience as a miner?—Yes, in the quartz-mines. I am a carpenter by trade.

23. Have you ever known a case where a shot was fired that it left behind three-quarters of a plug of dynamite?—Not in a hole.

24. Then, you cannot account for this particular piece of dynamite being there?—It could not have been put in the drill-hole. It must have been missed in the putting of it there. It was about 6 in. under the log when I found it.

25. Have you had any experience in the pressure of water on rock?—No.

26. Do you think it is possible for a large pressure of water, when held tight, to move broken rock?—If the rock was broken it would certainly move it.

27. Yet you think a dynamite shot did it?—Yes.

28. Could you see any sign of the drill-hole?—I never examined it. We picked the rock out about 15 in. deep.

29. You did not see any sign on the rock you brought out of the cavity you cut to put in the log?—No.

30. And yet you say there was a dynamite-shot?—Yes, because she came from the sides and was pushed into the middle.

31. You give it as your opinion that the water could not have done it?—Yes.

32. Yet you say you have never had any experience of the effect of water?—No. My opinion is that if water was strong enough to loosen the rock it would be strong enough to carry it away.

33. *Mr. Proud.*] How could a dynamite-shot be fired without splintering the wood?—If the dynamite was put underneath the dam it could be done without splintering the wood.

34. You saw no indication of a hole of any kind?—No.

35. *Mr. Corby.*] You were employed by Mr. Tennent in putting in the last dam?—Yes.

36. Were you instructed by Mr. Tennent to tell nothing of what was seen or heard when working at that job?—No.

37. How many of you were employed putting that dam in?—Three besides Mr. Tennent, Mitchell, and myself.

38. If anybody asked you what you were doing at that time, what was your reply?—That we did not know.

39. When engaged at any other employment before that did you make the same reply to a similar question?—It all depended on what I was employed at.

40. *Mr. Harden.*] If you were employed by a company in a quartz-mine, would you tell people outside what sort of a reef you were working in?—No.

TUESDAY, 29TH JANUARY, 1901.

TIMOTHY CORBY attended and made a Statement.

Mr. Corby: I have been speaking to the members of the Westport Harbour Board on the subject of haulage. I think it is not fair to charge the same haulage-rates for Mokihinui coal as for good household coal, and that the Government should reduce the rate. It seems to me wrong to expect 3s. 9d. per ton for haulage and royalty for coal which the producer can only get 1s. 5½d. for. The Harbour Board would benefit more than either the proprietors or the hewers by the reduction. The members of the Westport Harbour Board see it in the same light, and I believe they have agreed to make a recommendation to the Government on the matter. I hope the Commission will see their way to strengthen the hands of the Board in this direction. The present haulage-rates are 1s. 10d. per ton for the first ten miles, and ¾d. a ton for every mile afterwards. When on a deputation which was formed to endeavour to reduce the rates I suggested that for the first eight miles the rate should remain as it was, for the next ten miles it should be ½d. a ton, and ¼d. per ton per mile afterwards. I went into figures at the time to show that these rates would be equally remunerative with those charged at present. These rates would enable those at a distance to compete in the open market. At that time we reckoned that we had £16,000 of accumulated property in this district, and by the closing of the Cardiff Mine it would be of no use to us, for if a local industry fails everything in the locality is affected by it. People who live in a

district are always a valuable asset to the country as well as a profit to the place if they can procure work. It is an important consideration also that the Government have invested a large sum of money in the railway from Westport to Mokihinui, which would become practically useless if the mines were closed down. We urged that assistance should be given in order to keep the Cardiff Mine going, and now we have a number of worthy men endeavouring to reopen the Mokihinui Mine. It would be money well spent to assist them in prospecting new ground across the creek, for good hopes are entertained of its turning out a fair field. It might not be a large field, but I think there is coal enough there to keep a comparatively large number of people at work there for a long time, and I would like to see assistance given to these men, who have started to work on a very small capital.

JOHN GIBSON, Mine-manager, attended and made a Statement.

Mr. Gibson: I am sorry that the representative of the Westport Co-operative Coal Company is not here to-night to lay his ideas with regard to prospecting before the Commission, and also his proposals as to the future working of the Mokihinui Mine, which the Commission visited to-day. At present we are continuing a heading as low into the coal-seam as we can get for water. This heading is going up the side of the creek in the top mine, and we propose, with some assistance perhaps, to put an incline tunnel in below the creek. The coal strata is dipping towards the creek, and we propose to follow it and put on a pump and hauling-gear, and to prospect the mine on the other side of the creek, which we believe to be full of coal. We are also putting in a drive through the old workings from the right-hand side of the bins; but we have some distance to go to get into what is called the Lawrence section, which is the place where the best coal has been found, according to the evidence of the miners who have worked there in the past, some of whom are here to-night to confirm my statement. We have difficulties ahead of us, however, to contend with. The greater portion of that part of the old Mokihinui workings are sealed off—that is, there are stoppings which were put in to keep back a fire which occurred there some five or six years ago, and we hope to drive back by some other means of ventilation than what we have at present—say, with a small fan, or some other mechanical means. We do not think the fire down in the workings is very bad, but believe it is confined to the upper workings. We expect to get a considerable amount of coal in the pillars left in the former working of the mine. That is the extent of prospecting we propose to do in the top seam. In the Hutt seam, where the hope of the Mokihinui Coal Company lies, and also the future prospects of the Mokihinui Township generally, we have put in a prospecting-drive about a chain and a half on the right-hand side off the main drive, and we have a cross-drive to take the air in. We have 2 chains of driving there, portion of it being through stone, muck, and rotten coal. The company have put all the money they have been able to scrape together into the venture, and have denied themselves their wages to put in this prospecting-drive, which has cost over £2 per yard so far, and we have no good coal yet; but still we have a little prospect in the face that we are approaching to the solid ground. We have had four bords working on the left-hand side, but the places are of such a poor nature that the men are unable to make day-wages at them, and they demur to have these places put into the cavil as general working-places. They are so full of stone and coal mixed that it is impossible for the men to make a wage at them, and the company has been making up the difference in wages to 10s. per day. It has cost the company from 2s. to 2s. 6d. per day to make up the wages. In fact, the men say they prefer to work at the slack-heap than to go into these places and try to make a wage. Now, I wish to ask the Commission to give consideration to our application for assistance in prospecting these places, and we propose that the Government should be asked to subsidise the amount we spend. The drive in the Hutt seam has cost £2 a yard, and we shall have to put in a double drive for the intake, and therefore it will become more expensive the further it is driven. I also wish to draw attention to the slack, with the hope that something may be done by the Government, who are large consumers of coal, in the way of consuming our slack. I can safely say it is the cleanest slack in the district, as there is no fireclay or foreign matter in it. It is clean, pure coal; but it is so fine that we are using a ½ in. riddle for it. We are put to a considerable expense in putting it out of the workings, and when we do sell it we can only get 1s. 5½d. a ton for it—that is, from the face, including trucking and sending it down. The company get 2s. a ton, but out of that they have to pay 6d. a ton royalty and ½d. per ton for the accident fund, which leaves the net amount 1s. 5½d. I may say that the Mokihinui Company—which is only a party of working-men, twelve in number—have produced something like 14,000 tons of coal. They have paid nearly £4,000 in wages; £2,200 odd has been paid for railway-charges, which, with the royalty of 6d. and accident fund of ½d., brings the cost up to 3s. 9½d. per ton before the coal gets to market. The average wage earned by the coal-miners is 11s. 11d. per shift, but during the last fortnight it was 12s. 2d. That is the gross wage. They have to pay for their oil, powder, and tools out of that, which would amount to a little over 2d. per day.

1. *Mr. Lomas.*] What do you pay your truckers?—8s. 6d. per shift, and the day-men 10s.

2. *The Chairman.*] What do you pay per ton for hewing?—3s. 4d. The men get 1s. 8d. per box for riddled coal, and 4d. per box for slack, which is equal to 8d. per ton—that is, when we can sell it. If it is not sold we tip it into the creek. We think something could be done for us in the way of a reduction in the haulage-rate. The Mokihinui coal is supposed to be an inferior coal, and we consider it unfair that we should have to pay the same for haulage as for coal that can command a higher price in the market. With regard to slack, no one seems to care to buy it, and I would suggest that the Government erect briquette-making machines so that it may be utilised. It is the very best coal, free from all grit and fireclay, and is the cleanest slack in the Buller district.

3. *Mr. Lomas.*] Do you know the difference between the price of your steam-coal at the mine-mouth and the prices of other steam-coals in the district?—We tendered to supply the

Westport Harbour Board, and obtained the contract at 10s. 6d. per ton. It was 7s. 6d. here at the bins. The Westport Coal Company tendered at 15s. per ton.

4. Do you know the difference in the selling-price of your steam-coal, say, in Wellington and the price of steam-coal from the other collieries in the district?—I could not go into the different prices.

5. What is your ordinary selling-price for the coal you send away?—We get 7s. per ton for the steam-coal, riddled, that we send away. We pay 3s. 4d. for hewing that coal, whereas in the collieries, say, at Denniston, they only pay 2s. per ton for hewing steam-coal.

6. What is it costing you each day for prospecting—the actual cost to you without any returns?—Outside of trucking it is costing £2 at the face. The stuff has to be hauled, and the engineer has to be paid. The £2 a day is for actual wages paid to the miners. The bushmen, engineer, drivers, and truckers have also to be paid.

7. What would all that amount to in a day?—The ground has to be close-timbered, and, taking the timber into consideration, we are paying for timber, haulage, and trucking £3 a day.

8. *Mr. Proud.*] Could not the small coal be sold for firing steam-boilers by using a forced draught?—They use it now for firing on the steamboats.

9. Could you not get sufficient trade for all your small coal?—No. We have been selling it at a loss to try and get a trade.

10. If it is of such a superior quality it would be a very good coal for firing steam-boilers, and it is used at Home by the aid of a forced draught?—Yes. Our company is composed of working-men, and they have not perhaps sufficient influence amongst the traders to push the small coal.

JOHN MILLIGAN, Miner, attended and made a Statement.

Mr. Milligan: I have been deputed by the Mokihinui Miners' Association to appear before the Commission to-night and lay before it some of the grievances we labour under in this district. About the time the Cardiff Mine closed down the output of coal from the various mines was in advance of the trade, and the Cardiff Company said the mine was closed down because they could not make it pay. A number of people had been induced by the operations of these mines to settle in the Mokihinui district and make homes for themselves, but the closing of the mines forced them to leave the district and go elsewhere to seek work. A few, however, have returned, and have been able to obtain a little work at the Mokihinui Mine. Some who had homes here have obtained work at Granity, but a married man working at Granity while his wife and family are located here indicates a bad state of affairs. At the time the company shut down the mine we heard that it was going to fall into the hands of the Government, and we made overtures to the Government to acquire it, but nothing came of our requests, which were perhaps in excess of what the Government was prepared to do. We would like the Government, if it be possible, to establish a State mine; and that is a burning question with the miners generally, who think that the Government ought to do something in that direction. Failing that, we think the Government should assist parties of miners to develop the Mokihinui coalfields generally. We have an illustration of what can be done in the fact that twelve men have recently reopened the Mokihinui Mine and given work to a large number of others. I wish to show the amount of work the twelve men combined have done, although I am not in a position to show how much coal they have put out, and the amount of money which has been made by the company. There are about sixty men working at the Mokihinui Mine now. The twelve shareholders put a certain amount of capital into the venture, but, so far as I have been able to ascertain, they have not received 10s. a day for their work, or equal to what those they employ receive. We think that if a party of men like those can do so much for the district they ought to receive some consideration from the Government in the way of a prospecting grant. I understand that the company cannot go any further with their operations unless they get some assistance. The proposal we had under consideration as workmen was that the Government should be asked to let the Cardiff Mine to a party of workmen as an alternative proposal to the State opening a mine of its own. If an arrangement could be come to with the Government by which we could take over the plant and get some monetary consideration, to be dealt with hereafter, we would be prepared to open the mine again and give work to the people in the district. If companies can open up mines I think the workmen with State assistance can do the same, and we think it is the Government's duty to encourage an industry such as this. If money was advanced to us the property could be held as security. There would be no doubt of success if we could once get to what is called "Cave Area," which is a continuation of the Cardiff Coalfield. It has been reported on by Sir James Hector, and the last report was by Mr. Denniston, a coal expert, and the same gentleman who reported on Denniston, Granity Creek, and Wallsend. Mr. Broome, acting on that report, commenced boring operations, and found coal in the Cave Area, according to Mr. Denniston's opinions, in sufficient quantities to warrant him in recommending his company to spend some £10,000 in opening up that hill; but it is possible by judicious management to make that expenditure very much less. I have heard Mr. Fleming, an experienced mine-manager, repeatedly say that if he had £4,000 he could go into the field. We desire that the Commission will take a note of what I have said on behalf of the miners in this district, and that it will embody in its recommendations to the Governor some suggestion in the direction I have indicated.

Mr. WOODCOCK attended and made a Statement.

Mr. Woodcock: I wish to call attention to an injustice, by 2s. 6d. being charged on coal from the Mokihinui Mine to Seddonville, a distance of a mile and a half at the most. It is the opinion here that more coal would be consumed if the haulage-rate on the railway were reduced and the

people could get it at a cheaper price. People here have to use wood because the coal costs them so much. 2s. 6d. for haulage and 2s. 6d. for cartage make the cost of the coal 5s. more per ton, and yet we have the coal-mine close to our doors.

[N.B.—For additional evidence see Michael Straw, Orepuki, 12th March, 1901; George H. Broome and William Cunliffe, Kaitangata, 19th March, 1901; William Henry Hargreaves, Christchurch, 28th March; and John Hayes, Wellington, 3rd May, 1901.]

DENNISTON.

MONDAY, 4TH FEBRUARY, 1901.

JAMES PATZ examined.

1. *Mr. Cottrell.*] You are a miner working at Denniston?—Yes.
2. And also secretary of the Denniston Industrial Union of Workers?—Yes.
3. Do you remember the accident that happened to young Hart?—Yes.
4. What was the first intimation you had of it?—From Mr. Foster, that the case had taken place, and what we were to do about it.
5. What steps did you take with Mr. Foster?—We called a meeting after the lad had been sent to the hospital. Foster and I were authorised to go and see the lad at Westport.
6. And a day or so after did you go?—Yes; and by permission of Dr. Mackenzie we had a conversation with the lad.
7. After having seen Hart and returned to Denniston was any further step taken by you?—I wrote to the Minister of Mines the letter read this morning.
8. Do you know the man Bruhn who was working with the lad?—Yes.
9. Is he a practical miner?—I do not think so.
10. Can you say how long Bruhn has been working in the company's mine?—No.
11. Did you see the place where he was working?—No.
12. You heard evidence this morning in reference to the number of sprags used: as a practical miner, do you think Bruhn should have used more sprags?—Most decidedly.
13. Do you think that chocks would be as good as sprags in such a case?—No.
14. Explain why?—The coal has to be undercut before chocks can be put in. They only prevent the coal falling straight off the top of the holing. The machines are underneath, and the chocks are put in to prevent the coal falling on the machines. They do not support the face.
15. Are most of the faces perpendicular?—Most of them are leaning over towards the men, both in Ironbridge and Coalbrookdale.
16. Do you consider spragging absolutely necessary in those faces?—Most decidedly.
17. What do you say as to the ventilation in the mine?—Sometimes it is good and sometimes it is bad—very bad. I have been round the mine and found it very bad.
18. Can you mention any particular parts of the mine that you have found very bad?—Yes. On one occasion I found the Lady Glasgow section very bad.
19. Is there any other part you can specialise?—I have seen Munsie's jig very bad.
20. Do you consider that the air could have been improved?—Yes, certainly.
21. In what way?—By better bratticing and better conduction of the air throughout the mine; and it has been improved too.
22. Have you known the state of the air to be reported to the company's officials?—Yes.
23. Chiefly to what officers?—To the mine-manager and to the deputies.
24. Do you know of it being reported to the Inspector of Mines?—No, I do not think it.
25. Can you give any reason why it has not been reported to the Inspector of Mines?—I think the biggest reason is that we have not confidence in the Inspector to report it to him; and, in the second place, he has been very difficult to get at. He generally used to stop at the company's quarters. We do not care to go about the company's offices if we want to see the Inspector.
26. *The Chairman.*] A man may sleep at a particular place, but when he is about his work would he not be approachable by anybody?—He generally goes round with the mine-manager, and many men might have something to say which they would not say in front of the mine-manager.
27. *Mr. Cottrell.*] Some two years ago were the facts in Beirne's case at Mokihinui laid before your union?—Yes.
28. And were known to all the men in the union?—Yes, I think so; I am pretty well certain they were.
29. Is there any other reason you can think of for the men not having confidence in the Inspector?—Beirne's case was the one in point which made me think we had no confidence in Mr. Tennent, because Beirne was discharged from Mokihinui.
30. Was any of your correspondence used in any way that you know of, or brought before the officials of the Westport Coal Company?—Not that I know of.
31. *The Chairman.*] Did you ever write anything to the Minister on any other question?—Yes. In Hart's case, for instance.
32. Had you any reason to believe that the company's officers knew about that?—No.
33. With reference to the outlets, take the instance of a man in the most difficult face in the mine—the haulage being destroyed, is there egress for that man from the mine?—Yes; he could crawl out along the cliff; but that is not a travelling-road.
34. A man would not be imprisoned and done to death because of the destruction of the main heading?—No, I do not think he would. There are outlets from every place besides the main haulage-road.

35. But are the men allowed to travel those outlets?—There are plenty of men in the mine who do not know where they are.

36. *Mr. Proud.*] Is there a proper travelling-way or return airway?—Not in any of the mines here. There is a return airway in Cascade Mine, but the men do not travel it.

37. *The Chairman.*] Take one case where there is no travelling-way by the return airway?—The Ironbridge.

38. Will you explain that to us?—The Ironbridge is such a vastly different style of ventilation that the fan return in Cedar would take you away from where your home was. There is an exit by the return airway, but it would take the men away from their homes.

39. Have you known any instance where men have suffered at all by being detained in the mine until they knocked off work?—I have known men to be waiting and having to sit there for an hour or so before they were allowed to return by the rope-road.

40. *Mr. Cottrell.*] If a man becomes ill in his place and wants to get out, does he have to wait until the rope stops?—They would specially stop the rope for him.

41. Do you have to make a request for that?—Yes; to the mine-manager or the deputy.

42. As to the necessity of two separate outlets in the mine fit for the workmen to travel, you say they do not exist?—Yes.

43. What special inconvenience is that to the miner?—A miner does not always wish to stop in his place until half-past 4, particularly when working piecework; and if he wishes to go out he cannot, because he has to go on the main rope-road.

44. Is it usual to have these travelling-roads in mines?—I believe so, and always open.

45. Do you consider it is more than a matter of convenience—that it is also a matter of safety to life and limb in case of accident?—Certainly.

46. And you think it ought to exist in the Denniston Mine?—Yes.

47. Have you worked in the Big Dip section of the mine?—Only a few shifts.

48. I think you caused a letter to be sent in reference to it to Mr. Tennent?—Yes, acting under the instructions of the union.

49. What was the purport of the letter?—That there was no travelling-road for the men.

SIR,— Westland Trades and Labour Council, Denniston, 8th June, 1898.

I have been instructed by my Council to write you and draw your attention to clause 40 of "The Coal-mines Act, 1891," and also request that you take steps to have the same enforced. The clause relates to travelling-roads, and we wish you to have this clause enforced in every mine under your control. By attending to the above you will oblige,

Yours, &c.,

Mr. Robert Tennent, Inspector of Mines, Westport. JAS. PATZ, Secretary.

SIR,— Inspector of Mines' Office, Westport, 22nd June, 1898.

I have the honour to acknowledge receipt of your letter of the 8th instant, calling my attention to section 40 of "The Coal-mines Act, 1891." I beg to state that during my term of office as Inspector of Mines this section has and will receive my strictest attention.

Yours, &c.,

R. TENNENT, Inspector of Mines.

James Patz, Esq., Secretary, Trades and Labour Council of Westland.

P.S.—Was away from home on delivery of your letter, hence the delay in reply.—R. TENNENT.

SIR,— Denniston, 25th July, 1898.

I have been instructed to again draw your attention to travelling-roads in the mines at Denniston. There may certainly be two outlets to the mines, but are the miners allowed to travel them? In the Ironbridge, for instance, you start at the bottom of Cedar Creek section. For the first chain or so you have to go through the sump, then after you go a certain distance you come on to the rope-road again, then up the rope-road a piece, then into what is known as the back way, and finally, when you arrive at the mine-mouth, or very near it, you have to wait until the rope stops, should it be going, as there is no other road but the main haulage-way.

Then, take the Big Dip section at Coalbrookdale: Where is the travelling-road there? This, sir, is the kind of thing we wish remedied. Cascade also.

Trusting you will inquire into this,

I remain, &c.,

JAS. PATZ,

Secretary, Westland Trades and Labour Council.

Mr. Robert Tennent, Inspector of Mines, Westport.

50. To that Mr. Tennent replied in his letter of the 5th August?—Yes.

SIR,— Inspector of Mines' Office, Westport, 5th August, 1898.

Re *Travelling-roads, Denniston Mines.*

Replying to your letter of the 25th ultimo, in which you state, "There may certainly be two outlets to the mines, but are the men allowed to travel them?" the analysis of such statement clearly proves that the complaint as lodged is not in accordance with Regulations of Mines—section 40 of "The Coal-mines Act, 1891"—but is the product of a question raised.

Attention is directed to section 28, Regulations of Mines, "Coal-mines Act, 1891," also section 40. The analysis of the latter as per index page reads thus: "Openings in mines to be provided."

I may here state that the Act makes no reference to where shafts or outlets are to be situated on the coal area worked. Shafts sunk at the extreme boundaries of the coalfield, intercommunicating with each other, and which afford a separate means of ingress or egress available to the persons employed in such mine, is the rendering of the Act; also in the case of adits or other open drives in surface mines.

Ironbridge Mine, Cedar Seam: In the centre of this district of workings a heading has recently been holed in view of providing for a direct system of ventilation, and which also affords a separate means of ingress or egress available to the persons employed in the mine, whereby all persons employed in this mine can be removed in a few minutes. A suitable track is provided.

Cascade Mine, Coalbrookdale: At the end of last year my attention was directed to provide a better system of ventilation, and also a more suitable outlet to those formerly in use. After careful consideration this subject was laid before the management, which was accordingly approved of, and decided to be carried out. This work is now completed, with very satisfactory results. Again: A direct travelling-road which crosscuts all the ground in connection with this group of mines is in course of construction from Munsie's Mine. The distance to be cut from the plan-measurements does not exceed 1 chain. Further, the management has been notified to keep this drive constantly at work until holed.

Big Dip.—True, the back travelling-road from this district has been lost during my last two visits, but provision is made, should accident occur, whereby the workmen employed can have a free way out. This section of workings will be exhausted in about three months. But should further objections be raised the probabilities are its

abandonment, and the men there employed may be thrown idle. I do not write thus in view of shirking the Act, but to make the best of the conditions under which we are placed.

I am reliably informed by the managers that to avoid inconvenience to sick persons, or any person who may ask leave of absence at any time during working-hours, liberty is freely granted, and in consequence the rope is stopped until they arrive at the mine mouth.

As regards working-hours adopted at the various mines between master and servant, so long as they do not infringe on the time expressed by the Coal-mines Act, interference is beyond my duties.

I will at all times consider it a favour to communicate with you or your Council on any complaint or other question with relation to the safety and comfort of the working miner.

I have, &c.,
R. TENNENT, Inspector of Mines.

Mr. James Patz, Secretary, Denniston Coal-miners' Industrial Union of Workers.

51. It is mentioned in the letter that the section would be worked out in a certain time—about three months from the writing of the letter dated 5th August, 1898: do you know how long that section really took to work out?—I do not.

52. Are you aware that it was some time over three months?—I do not know. It might have been.

53. Are you aware that a great deal of coal has been blocked off by the closing-down of that section?—I believe so; but I can only say I worked two or three shifts there.

54. Was the road there very different to other roads in other sections of the mine?—There was no travelling-road at all. We had to go up the main haulage-way.

55. *The Chairman.*] But there was a way out?—No, with the exception of the main haulage-way.

56. Then, if the main haulage-way had fallen in the men would have been entombed?—There was no exit that I know of from the Big Dip.

57. *Mr. Harden.*] How long have you been a miner?—I was brought up amongst the mines.

58. How long have you been a coal-miner?—About eight years.

59. Where did you start?—At Denniston.

60. What did you start as?—A trucker.

61. How long were you trucking?—About three or four years.

62. Then what were you put at?—Coal-getting.

63. You have been about five years coal-getting?—Four or five.

64. When you went to coal-getting who did you go with?—By myself the first shift or two, in a place about 4 ft. high.

65. How long were you coal-getting before you considered yourself qualified to go to a face?—I was put on coal-getting straight away.

66. Did you consider yourself capable?—Yes; I had been trucking before about the mine.

67. And you thought yourself perfectly safe?—Yes; I was working at a place 4 ft. high.

68. You never considered yourself unqualified for that work, or that you endangered the lives of other miners or boys?—No; I had no one under me.

69. When did you first work with a mate?—Shortly afterwards—about two or three months.

70. Was he an experienced miner, or a beginner like yourself?—He was an experienced miner.

71. How long do you think a man needs to be working a 4 ft. seam before he can be considered an experienced miner?—It depends upon the man.

72. Take the average coal-miner of your acquaintance?—If the man has been knocking about mines for eight or nine years he would not take long.

73. How long?—It might be six months or a year.

74. You managed it in two or three months?—Yes, with the competent mate I had.

75. Was it not more dangerous where you were than working with a machine?—Decidedly not, where I was working.

76. In a place 9 ft. high by 20 ft. wide is it safer to work with a machine than by the old method?—Under the old method, most decidedly.

77. How long have you been been secretary to the union?—About five years.

78. Have you kept a record of all accidents?—No.

79. Can you tell us whether accidents have been more or less frequent since the introduction of the machines?—I have no records.

80. What is your opinion on the matter?—I believe in late years there have been fewer serious accidents, but more of a less serious character, such as men getting a fall of coal on them and laying off for a few weeks. Colwin was knocked down by a fall of coal while filling coal after the machine had holed it.

81. When did he meet with that accident?—Before Hart's.

82. Are there any others you can speak of from memory?—I cannot speak from memory, but some one will have the record.

83. You said the ventilation was bad at the Lady Glasgow section: when was that?—About twelve months ago.

84. But you say it was improved?—No.

85. It has not been improved?—I do not know. I spoke of Munsie's jig.

86. Has Munsie's jig been improved?—Yes, quite recently, when the attention of the mine-manager was drawn to it.

87. Did you ever complain to the mining-manager, Mr. Lindop, that the mine-manager, or the deputy, had received a complaint and had not attended to it?—Yes.

88. Did you complain frequently?—Yes. You will find it in the company's books.

89. Did you get any satisfaction?—In Dunn's case I did.

90. Have you any other intances of complaints being attended to like that?—No.

91. Have you any reason to suppose that if other miners had complained their complaints had not received attention?—I do not know, I am sure.

92. So far as your own personal knowledge goes, does it amount to this: that through having received satisfaction from the mine-manager you had no reason to complain to Mr. Tennent?—I go round and report for the miners, and then do not go for months.

93. You said you received satisfaction from Mr. Dunn?—Speaking generally, I know that the ventilation has been very bad indeed.

94. And you say that you are one of the inspectors for the men?—Yes.

95. Whenever you had cause to complain you would put it on record in the mine-manager's books?—Yes, when I went on that particular day; but I might not be round again for two months.

96. Were remedies supplied?—When we went round again the whole condition of the mine might be altered.

97. You cannot give us any other instance where your complaints have been attended to?—I am only one of three hundred men working in this mine.

98. Can you give us any other instance where your complaint has been attended to?—No. I do not know whether that complaint I was speaking of was attended to.

99. Can you give us any instances where complaints have been ignored?—I cannot tell, because there may be two months' interval between my visits round the mine. Men might not be working in the same place.

100. You say, as inspector for the men, you examined the mine, and when you found cause to complain you entered it in the company's book. Now, I ask, can you give us any instances where your complaints have received attention?—I do not know.

101. Have you had occasion, through negligence in attending to your complaints, to complain to the Inspector of Mines?—No, because we never did complain to him.

102. Then, having had no cause to complain to the Inspector of Mines of the management's inattention to the ventilation, why lay a charge against him that the ventilation is bad, and that you cannot complain to him because there is no confidence in him?—I had no cause to complain to the Inspector.

103. Had you any cause to complain to the Inspector as a man in whom the men trusted?—The first thing I do is to report to my union.

104. Had you any cause to complain to the union?—Repeatedly; and others have complained about the bad ventilation.

105. Are there any records of the complaints?—We never made them in writing.

106. *Mr. Cottrell.*] Was any other action taken by the union except by writing to the Minister?—No, I do not think so. I say that we did not complain to Mr. Tennent because the union did not have confidence in him.

107. *The Chairman.*] You have told us that in one case you complained to Mr. Dunn?—I did myself.

108. And you found that was remedied?—Yes.

109. Have you complained to any one else?—I had no occasion.

110. Have you complained about other faults?—For myself in particular, I have always been very lucky in working in Munsie's jig, where the air is very good. I have never worked amongst the machines, where complaints have been made.

111. How long has the air been good in Munsie's jig?—I have been working there about nine months this time, and the air has been remedied.

112. How did you make the report in the company's book?—I wrote it myself, and signed it with the other gentleman who was with me.

113. How often did you report in the books?—I have been round about four or five times.

114. There would only be four or five reports in the books?—Yes.

115. How long have you been an inspector?—About twelve months.

116. This is the suggestion to my mind: Did you not neglect your duty, which you had undertaken to do, and which your fellow-workmen had intrusted to you, by not reporting things that you had good occasion to find fault with?—Everything I found amiss in the mine I always reported.

117. Take the last year, during which you have been fulfilling your duty as check inspector: you say you have reported in the company's book everything you found amiss?—When I go round the mine, once, perhaps, every two months, it is just a casual run round. I do not know how the mine is between that period and the next. I must report the mine as I find it.

118. What is your duty as check inspector?—It is to see that the general state of the mine is in proper condition with regard to the trucking-roads, the timber supplied to the men, and the ventilation.

119. You are appointed by the miners as a check upon the Government Inspector?—Yes.

120. Apart from what occurs during your visits, are you not responsible, like the Government Inspector, for failing to report anything that requires a remedy?—Well, I have said that everything I have seen I report.

121. You say that you have reported everything that you saw amiss?—When I go into the mine I do not go in with the same responsibility as the Government Inspector.

122. I fail to see the difference?—I have no authority to do anything—the Government Inspector has.

123. *Mr. Lomas.*] You have authority to report the state of the mine?—Yes.

124. *The Chairman.*] Did you report the state of the mine?—Yes; the two of us have.

125. Can you mention every instance where you called attention to something requiring a remedy?—I called attention to the travelling-roads on two occasions.

126. Was anything done on each occasion?—Yes.

127. Was what was done satisfactory?—Yes.

128. What else did you call attention to?—The state of the air.
129. On how many occasions?—I remember two occasions.
130. Was that attended to?—That is what I say I do not know.
131. Have you any reason for thinking it was not?—Yes.
132. What is the reason?—By other men telling me. That is all I have to go by.
133. In what part of the mine?—Ironbridge and Coalbrookdale.
134. When you went again into Ironbridge and Coalbrookdale did you see the condition of the air?—The condition of the mine changes so much that the ventilation on some occasions is good and at other times fair: it depends upon the wind.
135. Had you occasion to report again on Ironbridge and Coalbrookdale?—I do not remember.
136. What was the last occasion on which you went round?—It would be about a month or five weeks ago.
137. What was it like then?—The ventilation was fair then in both places.
138. Had anything been done to it, or had it cleared itself?—Some days it is better than others.
139. Had anything been done to improve it?—Probably there had been or had not; I could not say.
140. *Mr. Lomas.*] If you were going round the mine repeatedly, would you not notice if anything had been done to improve it?—Yes; in some cases there might have been bratticing put up.
141. But can you not tell us whether there had been anything done?—No. Between my visits there might be two or three months.
142. Suppose you were round the mine yesterday and found in a certain place there was no brattice-cloth up, and you went round again two or three months later, you would know whether anything had been done?—Certainly; but where the machines are working the men are working from the face, and between my visits the men may have been put in different places.
143. *Mr. Harden.*] The complaints about the ventilation apply practically to the faces where the machines are working?—Yes, practically.
144. The complaint as to places where inexperienced men are at work applies to the machines as well?—Yes.
145. Did not most of the accidents happen where the miners are holing?—I could not say.
146. Is it not so from your experience?—No; I have not worked where the machines are.
147. Is not working with a hand-pick the most dangerous part of a miner's occupation?—I should think so.
148. And where accidents are most likely to occur?—Yes.
149. You say the man Bruhn was not an experienced man?—Yes.
150. Do you know that he had been in charge of a mine twelve or eighteen months?—I did not know.
151. Before Hart's case had you heard any complaints in the union about him?—No.
152. Did you personally hear any complaints about him?—Yes, incidentally, that he did not do his spragging properly.
153. Was this during the time you were inspector for the men?—I do not know. I heard it outside the mine.
154. Was attention called to the complaint?—I do not know. It was not a complaint made to me. I only heard of it.
155. *The Chairman.*] When you are check inspector do you do no other work?—Decidedly I do. I am just a collier, and take a day off to do the inspecting.
156. *Mr. Harden.*] Will you give us other instances where Mr. Tennent shirked his duty by allowing inexperienced men to have a boy or youth under their control: was this particular instance of Hart's in your mind?—I wrote that letter under instructions of my union.
157. Who are the inexperienced persons you refer to?—I do not care to give names.
158. But you made the charge?—Mr. Lindop has the names of the new workers.
159. Were you present when the union discussed this matter?—Yes.
160. Were you present when the union passed the resolution that it should complain of Mr. Tennent?—Yes.
161. Of whom did they complain?—The new starters.
162. When did you count them as new starters?—When the machines came.
163. Has that state of things existed ever since the machines were put in the mine?—Yes.
164. Did the miners at Denniston refuse to work at the machines?—I believe there have been some instances where men refused, and others where the men did not care to work on them.
165 Did you ever refuse?—No.
166. As a check inspector, did you ever draw Mr. Tennent's attention to the fact that the company were employing inexperienced men to work at the faces?—I cannot report anything unless I have the sanction of the union.
167. *The Chairman.*] Are you check inspector for the union?—Yes.
168. *Mr. Harden.*] You never reported to Mr. Tennent that inexperienced men were allowed to work at the faces?—No.
169. Did you report it in the company's books?—No, decidedly I did not, because in many cases when I go round the mine I do not see the men working the machines at all.
170. Have you at any time during your inspections seen an inexperienced man working at a coal-face in charge of a boy?—When going round the mine I have seen very few men working at the machines.
171. Have you ever seen any inexperienced person in charge of a coal-face with a boy or youth under his control?—I have seen men that I have known to have recently come here in charge of a coal-face and a boy under them.

172. Do you think that was improper or unsafe?—It was not for me to think whether it was improper or not.

173. But you are check inspector?—I do not think it is any part of my duty to report anything of that sort in the company's books.

174. Do you or do you not think it was safe?—I do not think it was any part of my duty to report anything about it.

175. Did you think it was safe?—I did not think it was safe.

176. And you say you did not report this?—I did not think it was part of my duty.

177. Why did you not think it part of your duty?—I think that is the Inspector's duty, not mine. I have no authority or power.

178. Should not your duty to your union compel you to see that the Government Inspector does his duty?—I do not know about that. The Government Inspector comes round so very seldom.

179. *Mr. Harden.*] You are a check inspector appointed by the men under the Act?—Yes.

180. What did you consider your duties were?—To see that the trucking- and travelling-roads were in good order, that timber was supplied to the men, and generally to note the conditions of the mine.

181. And if you saw anything wrong what did you consider it your duty to do?—To report it in the company's books.

182. Did you consider the employment of an inexperienced man at the face with a boy in charge an improper thing?—Yes; but I thought that was the Government Inspector's duty to see to, not mine.

183. The matter cropped up later at a meeting of your union, and you wrote this letter?—Yes.

184. Did you think it was a proper thing to complain to the Minister?—Yes.

185. Are you a member of the union?—Yes.

186. Have you a vote?—Yes.

187. Did you support the motion that this complaint should be lodged with the Minister?—I do not think I am obliged to answer that question.

188. Did you support the motion?—I believed in it.

189. Do you think this was a proper charge to lay against the Inspector?—Yes.

190. *The Chairman.*] The inspection of machinery is specially mentioned as part of your duties in the Act?—I have never inspected the machinery yet.

191. *Mr. Harden.*] Is there any other check inspector for the machinery?—No.

192. *The Chairman.*] I do not suppose you would be expected to examine the boilers and other machinery of that kind, but you could have inspected the coal-cutting machines, and I understood you to say you did not consider it your duty to do so?—I said I did not think it was my duty to report about these men working at the machines, and I considered that to be the duty of the Government Inspector.

193. *Mr. Harden.*] Supposing you saw a man who was not spragging properly, do you not think that would be a matter for you to report?—Yes, if it came under my personal inspection.

194. Did you inspect this place where Bruhn was working?—No; the accident inspectors visited that.

195. Had you seen him working there?—No. I saw him sitting on a table there. I never saw him working the "iron man."

196. Who supplies the timber for spragging?—The company.

197. Is there a plentiful supply always on hand?—Yes; I have always seen plenty when I went round.

198. Then, if a man does not put up sufficient spragging, whose fault is it?—The fault of the man.

199. I suppose you are aware that, as a matter of law, he is liable to be fined if he does not comply with the Act in that respect?—Yes.

200. Have there been many complaints of insufficient spragging within your knowledge: is it a common complaint?—There was a man fined the other day. The complaints do no come to me.

201. Have you noticed much default in that respect in the course of your inspections?—As I have said before, there are very few machines working when I go round.

202. *The Chairman.*] That is not an answer. You have to sprag whether you are hewing or cutting with a machine. The question is, when you have been going round the mine have you noticed any deficiency in spragging?—I cannot say I have.

203. *Mr. Harden.*] In answer to Mr. Cottrell, you said it was difficult to get at Mr. Tennent because he generally stopped at the company's quarters?—I said he used to.

204. How long ago is it since he stopped at the companys' quarters?—I cannot say. He came to stop at my place about twelve months ago.

205. Do you know how often he has stopped at the company's quarters?—No.

206. Did you ever endeavour to see him and find you could not because he was staying at the company's quarters?—I know a gentleman who did try.

207. Who is the gentleman?—Mr. Foster tried to see him, and that is why we came to know he was stopping at the company's quarters.

208. As a responsible officer of the union, do you seriously wish the Commissioners to believe that Mr. Tennent could not be seen because he was stopping at the company's quarters?—I do not want to make any capital out of it.

209. How long was he stopping there?—A day or two each time. Recently he has not been stopping there—for a period of about six months.

210. Did you frequently see him when he was stopping at your place?—No.

211. Did you ever make complaints to him then?—No; I had no authority to make complaints to him.

212. Did your union through you make any complaints to him?—No. The union had come to the conclusion that they had no confidence in him, and would not report to him.

213. *The Chairman.*] Did he stay at your place as a friend?—No; he paid his way. I have a hotel.

214. *Mr. Harden.*] You told us the union did not complain to Mr. Tennent because they had no confidence in him; and you also told Mr. Cottrell that you could not get at him because he was staying at the company's quarters: I suppose there is as much reason in the one as in the other?—I am only acting for the union, and I have to do as I am told.

215. Have you any other reason to give why you have not confidence in Mr. Tennent?—There was the Beirne case.

216. Have you any other?—Generally, my own opinion.

217. You never tested Mr. Tennent by making a complaint to him and ascertaining whether he would attend to it?—It might have been too costly a job.

218. Why?—A lot of things might have come out of it.

219. What reason have you for saying that?—Because of Beirne's case. There are any number of men in the mine who would not make a complaint if they thought it would get to the manager's ears.

220. Why?—Because they would not care for it to go back to the manager's ears.

221. For fear of being discharged?—I do not say that, but different men have different ideas.

222. With regard to Beirne's case, were you secretary of the union when it occurred?—Yes.

223. Did you ever complain to the Inspector in connection with Beirne?—I do not think so.

224. You went straight to the Minister?—The Mokihinui Union took the matter up first, I think, and then our union had it before them.

225. Did you communicate in any way with Mr. Tennent about it?—Yes; the Mokihinui Union had done so.

226. You went straight to the Minister about it?—Yes.

227. And it is because of the Beirne case that you and your union, the miners of Denniston, have lost confidence in Mr. Tennent?—So I believe.

228. Had you confidence in him before?—I do not know. I never knew much about Mr. Tennent, and they did not say anything about him.

229. Was the ventilation of the mine bad and was the inexperienced men employed at the coal-face before Beirne's case cropped up, or have all these things happened since that case?—I suppose there were complaints before.

230. Had you any ground to complain of bad air, or of inexperienced men having charge of a face, or the want of roadways, before Beirne's case cropped up?—I was not check inspector then.

231. Had the miners complained?—I do not know.

232. Did the same condition of affairs exist before as after Beirne's case?—I do not know.

233. Were you working in the mine before Beirne's case came up?—Yes.

234. Were you secretary of the union before that case?—Yes.

235. Were any of these matters discussed before Beirne's case occurred?—They may have been.

236. Had the union any confidence in Mr. Tennent before Beirne's case occurred?—No.

237. Had Beirne's case anything to do with the want of confidence in Mr. Tennent?—Most decidedly.

238. Is that true: was it because you had no confidence in Mr. Tennent on account of Beirne's case?—That is my opinion personally.

239. Had you, prior to Beirne's case cropping up, confidence in the Inspector?—I did not know him.

240. Is it a fact that your union did not support Mr. Tennent in his application for the appointment?—Certainly it is.

241. He was appointed, of course?—Yes.

242. And since then you have at all times been antagonistic to him?—No, I do not think so. I have never been antagonistic to Mr. Tennent.

243. Have you any other ground for having no confidence in Mr. Tennent than that you did not support his application?—We did not think he was the person required for the position. I did not know whether he was good, bad, or indifferent. I had not seen the gentleman.

244. *The Chairman.*] Did you support any other candidate?—Yes.

245. *Harden.*] With regard to roads, have you had experience of any mines where there are travelling-roads such as you asked to have made in this mine?—I have never had experience in any other mines.

246. Can you give us any instance where such a case exists?—Not of my own experience.

247. Do you know anything about the arrangements which were made between the Inspector and the management as to the method of working the Big Dip section?—No.

248. Can you give any estimate of how many thousands of tons of valuable coal have been sacrificed?—No.

249. What is the particular charge you make against Mr. Tennent in connection with section 44 of the Act?—I think that is about complaints made to the Inspector being divulged.

250. You say he was acting in direct contravention to section 44: in what way?—That was when Beirne was discharged from Mokihinui.

251. In what way had Mr. Tennent contravened the Act?—By bringing back to the management the document that had been signed by the men.

252. Who was the document written to?—The Minister of Mines, I believe.

253. Is that the only instance?—That is the instance I have in my mind.

254. How does he contravene section 44 of the Act by communicating the contents of a document written to the Minister of Mines? Is this the section: "Immediately upon any miner working in the mine making a complaint under this Act to any Inspector, it shall be the duty of such Inspector to make inquiry into the matter of such complaint, and to take such other steps as he may deem necessary to investigate the matter, and the name of the informant shall not be divulged by the Inspector"?—That is it. I do not know but what they did write to the Inspector too.

255. The Denniston Union charged Mr. Tennent with direct contravention of section 44: how?—By bringing back those documents.

256. It all comes back to Beirne's case—that is the only instance?—Yes.

257. With regard to the roadways, do you know why the men should not be allowed to travel through the other ways?—In some cases they are not safe.

258. Have not the deputies and mine-managers to check them going out?—Yes.

259. If the men were allowed to go out by whatever course they pleased, how would it be possible to check them?—They could tell the deputy they were going out.

260. Have you not known where a man has gone out by some other channel, and the deputy has had to spend some hours searching for him, and then found him at home?—Not to my knowledge.

261. *The Chairman.*] The question is not whether it is for a man to go in and out at pleasure, but whether there is a way known to the men to get out in time of danger?—There are plenty of places, but there are also plenty of men in the mine who do not know their way out.

262. *Mr. Harden.*] Imagine a case where there was a disaster on the main road, surely there would be men in the mine who would know how to get out?—A man might be working away from the others.

263. *The Chairman.*] Supposing there was a separate roadway, a new man would not be able to find his way?—Most decidedly he would not.

264. Is there a road running parallel to the main haulage-road?—In some parts there are.

265. I mean in all parts?—We suggest that there should be.

266. *Mr. Cottrell.*] With regard to the breach of section 44, in Beirne's case, I thought the complaint was the divulging of the contents of a document to Messrs. Bayfeild and Broome?—That is the rendering we put on that section.

267. And the members of your union all knew of this?—Yes.

268. They also knew that Beirne had been dismissed?—Yes.

269. *The Chairman.*] And also, I suppose, you objected to Mr. Tennent assisting in the demands made upon Beirne, Tressman, and Pratt to state whether their signatures were attached to that letter?—Yes.

270. *Mr. Cottrell.*] I understand that the Mokihinui Union, as a sister-union, asked you to take this matter up?—Yes.

271. How many men does your union consist of?—214 at the present time.

272. How often are general meetings held for the discussion of business?—Sometimes once a month, and oftener. The executive committee meets once a fortnight, and sometimes oftener.

273. And at both these meetings complaints made by the miners are brought up and dealt with?—Yes.

274. How many does your executive committee consist of?—Nine.

275. And in formulating these charges you were acting under direct instructions of your executive committee of nine?—Yes.

276. Were you acting with the full knowledge of the members of the union?—Yes.

277. Was a vote taken on this question, or was it only the action of the executive?—I cannot say whether a vote was taken on it without looking at the minutes.

278. In reference to your position as check inspector, an endeavour has been made to show that you, as inspector, should have taken up the position of finding out about all these complaints at once, recording them in the company's books, and also continuing to persevere with them until you got satisfaction: am I right in understanding your duties to be like that?—No.

279. What are your duties, then?—I have always considered that I had to go round that mine to see that the travelling-roads, the timber supplied to the men, and the ventilation of the mine was in a proper state.

280. And simply to report it in the books?—Yes.

281. Did you consider it part of your duty to press it on and take other measures?—Not without the sanction of my union.

282. Did you consider it your duty to go afterwards and see if this work had been actually carried out?—Not until my next visit of inspection.

283. And in carrying out your duties you did not consider the inspection of machines or the men connected with them formed part of your duties?—No. I went round the places where the colliers were employed.

284. As a rule, are there not a different class of men employed on the machines?—Yes.

285. Were the men employed on the machines chiefly new men?—Yes.

286. And not experienced colliers?—No, not to my idea.

287. And that class of men has been employed since the machines started?—Yes. There are some colliers employed.

288. If you saw an inexperienced man employed, did you consider it part of your duty to put it down in the book?—No.

289. Besides the reports made in the book by you about the air, were complaints made by meetings of the miners?—Yes; about the bad ventilation.

290. It is on the general complaints of the men that you have based these charges?—Yes.
291. And these complaints would be made by the men at the meetings?—Yes.
292. Before a man goes on these machines do you think he ought to have some training in the mine?—I think so, especially if he has a lad under his control.
293. Do you consider a gold-miner, like Bruhn, coming from Reefton, a proper person to take charge of a machine?—No, I do not.
294. If he had been four years trucking in the mine, as you have been, do you think that would have made any difference?—Most decidedly it would. It would have given him a big idea of how to make the place safe.
295. *Mr. Lindop.*] You say that Bruhn was not an experienced miner?—I should think not.
296. And yet he has been working eighteen months on these machines?—I do not think it.
297. Is it not quite as different a change for a coal-miner to work these machines as for a quartz-miner?—No, because a quartz-miner has no idea of spragging coal-faces, but a coal-miner has.
298. You had about three months' experience before you were a duly qualified miner and fit to work on the coal, and take your chance on the cavil?—Yes.
299. Why do you, after three months' experience, consider yourself a qualified miner to go on the machines, and not a man with eighteen months' experience?—Because I had been in the mine working for four or five years, and have seen the work done.
300. With regard to spragging, a witness said this morning that these chocks were not sprags?—No, I do not consider them sprags.
301. What would you consider that—a chock or a sprag [illustration produced]?—A chock or a short sprag.
302. You say that in the Big Dip section there was no outlet?—I said that, to the best of my belief, there was only one outlet, and that was the main rope-road.
303. There was the rope-road going in, and the pump-road going out?—But the men were not allowed to travel them. I only worked in the Big Dip four shifts.
304. With regard to Munsie's, you have got a travelling-road, back heading, and a road in the Cascade?—The road in the Cascade is not safe for men to travel through. I was through it.
305. In the Cascade section we have a main rope-road, a road over the top of the dip, a fan-road, and two roads out of the Cascade: is that not so?—There is a road over the top, and there is a piece of travelling-road.
306. Do not the deputies have to wait at the mine-mouth to see if all the men are out?—I think so.
307. If we had half a dozen roads out would we not want half a dozen deputies?—I do not know about that.
308. It is about three years since the machines started?—Yes.
309. Do you know what our present output is as compared with what the miners produced?—I do not.
310. With regard to the ventilation, you said that, as far as Munsie's was concerned, you spoke to Mr. Dunn, and he put the ventilation right again?—Yes.
311. That was a local case—it was a prospecting more than a working place?—Yes.
312. You never worked in the Lady Glasgow section?—No.
313. You say you have seen the air very bad there?—Yes.
314. Will that be in your report?—Yes.
315. These inspections are made without notice to the managers or any one else?—Yes; we can go when we like as check inspectors, and there is never any check put upon us.
316. *Mr. Lomas.*] You say you inspected a part of the mine where the ventilation was bad?—Yes.
317. Do you know whether there is any definite system of ventilation?—Yes, by fan.
318. Was the air conducted properly round the working-places by stoppings in the stentons and bords, and so on?—Yes, in some places. I think I reported there was no intake from the outside, but that has been altered since. The air was drawn up the centre drive.
319. I want to know how you account for the bad air if there was a fan and the ventilation was conducted properly round the faces?—I do not know how it was. The air was there, but it was terrible thick and smoky.
320. Were the bottoms of the bords properly bratticed off?—There was just split brattice.
321. Were the stentons left open so that the air could take the nearest cut?—It is such a big section that I could not particularise it.
322. Did you not go through the stentons?—Yes.
323. Would you not know whether there were any stoppings or not?—I cannot remember.
324. With regard to these many outlets, would you consider it safe to go on the edge of those cliffs?—No, because it is dangerous, and the rock is broken.
325. You said that in your report you suggested that some alterations should be made in the travelling-road?—It was very wet and muddy, and had a lot of pipes and timber about it. It was hardly safe for the men to travel with a lot of picks with them.
326. The machines going over more ground than the men go over working in the ordinary bords, would not the conditions of the mine be naturally worse?—Not necessarily so. They might get better air by travelling faster.
327. Do you mean to say to me, as a practical miner, that if there are only two places, and the air has to travel twenty, there would be more chance of getting air in the twenty than in the two?—In many places they had driven to an outcrop and improved the ventilation.
328. You said you did not consider it your duty, in going round the mine, if you saw a certain amount of danger in a bord where men were working the machines, to report it?—I did not say that. I said I did not think it was my duty to report a man there who was not a practical man.

329. Supposing you were going through a bord and you saw one of the miners—say, a new-chum—do something which you considered would endanger the lives or limbs of his fellow-workmen, would you not report that?—Most decidedly.

330. And would you not do the same with a man working at the machines?—Most decidedly I would report him if I saw he was endangering the life of another man.

331. If you saw an incompetent man working in the mine would you report him?—No; I have no authority. I am only a check inspector.

332. *Mr. Cottrell.*] Is it not a fact that you do not consider you ought to put anything down about a man working a machine?—That is what I have been trying to explain all the time, that I do not report anything about men working the machines. I would have to put something down where I thought a man was endangering the lives of others.

333. *Mr. Proud.*] In making your inspections did you travel the return airway?—Yes.

334. How did you ascertain the quantity of air: did you measure it?—The amount of air is booked.

335. Do you think an experienced miner should be in charge where the machines are at work?—Yes, especially where a lad is under his control.

336. If deputies and miners had certificates, do you think it would be a good thing?—Yes; that would be a step in the right direction.

337. Did you ever see the coal come down on the coal-cutter while it was at work?—Yes, on one occasion I saw the coal come down on the machine.

338. Do you think larger or cleaner coal is got by the machine than by hand-work?—No; I do not think the machine makes nearly such clean coal as the miner does.

339. Did you ever observe black-damp during your inspections?—No.

340. Do you consider that where mechanical haulage is employed there should be a separate road for the men to travel in and out?—Yes.

JOHN FOSTER, Miner, examined.

1. *Mr. Cottrell.*] You are a miner, residing at Denniston?—Yes.

2. How long have you been here, eight years, within a few months.

3. Almost constantly employed in the mine?—Up to three years ago. I have been check-weigher for the men since that time.

4. You are also president of the Denniston Industrial Union of Workmen?—Yes.

5. I think some time ago you, acting in conjunction with the secretary, laid a charge against Mr. Tennent, the Inspector of Mines, on behalf of the union?—Yes, by resolution passed by the union.

6. What did you base the charge on? One has reference to ventilation: can you say anything about the ventilation in the mine?—The ventilation, so far as I understand and have been told, is very bad. Men have frequently had to go home on account of the bad ventilation.

7. Has this been represented to the Inspector? If not, why not?—I do not think so; because we have not got that confidence in the Inspector that workmen should have.

8. Have you had any reason for losing confidence in him?—Yes; at the time we did complain to him about the roadway, at the time the Big Dip was in existence. He told us in the correspondence that if he forced the travelling-road the company would shut down the mine.

SIR,— Denniston, 6th September, 1899.

Acting under instructions from our executive committee, we beg to reply to your letter of 22nd August, as follows:—

We, on behalf of the Denniston Coal Miners' Union, formulate the following charges against Mr. Robert Tennent, Government Inspector of Mines, and would respectfully request that an exhaustive inquiry be held on the same. The following are our charges, viz.:—

That Mr. Tennent is not a fit person to act as Inspector of Mines, as his conduct in the past has shown, and we will endeavour to substantiate the following charges at any time an inquiry may be held.

That Mr. Tennent shows distinct apathy to the health and well-being of the workmen in our coal-mines in not seeing that a proper system of ventilation is carried out, thereby causing persons to become unconscious at their work, and such persons have had to be carried out of the working-places to be resuscitated.

That Mr. Tennent distinctly shirks his duty in allowing inexperienced persons to have charge of a coal-face, with a boy or youth under their control. This is quite a new procedure, as in the past none but experienced miners were allowed charge of any coal-face. By such practices as this we may say that occurrences as described in the foregoing paragraph take place.

That Mr. Tennent distinctly shows favour to the proprietors of the Denniston Mines by not compelling them to provide two separate outlets to the mine, fit for workmen to travel, in accordance with section 40 of the Coal-mines Act, and also that Mr. Tennent puts an altogether wrong construction on this clause. In relation to the above, we would respectfully draw your attention to the copy of Mr. Tennent's letter bearing on this question already forwarded to you.

That Mr. Tennent distinctly shirked his duty in allowing the Big Dip section of the Coalbrookdale workings to be closed down, knowing, as he ought to have done, that thousands of tons of valuable coal were being sacrificed by this action.

We charge Mr. Tennent with acting in direct contravention of section 44 of the Coal-mines Act. Therefore no coal-miner or workman has the temerity to communicate to him any breach of the Act they may from time to time observe under fear of being dismissed. This being so, it is the workmen who suffer, seeing that Mr. Tennent only visits these mines about once—one every three months.

Trusting that you will give this your earliest and careful consideration,

We have, &c.,
JOHN FOSTER, President.
JAMES PATZ, Secretary.

The Hon. the Minister of Mines, Wellington.

(1919.) Mines Department, Wellington, 5th October, 1899.

IN reply to your letter of the 6th ultimo, formulating charges against Mr. Robert Tennent, Inspector of Mines, I have to state that it has been arranged that Mr. Hawkins, S.M., shall inquire into the charges and report thereon.

H. J. H. ELLIOTT, Under-Secretary.

Mr. John Foster, President, and Mr. James Patz, Secretary,
Denniston Independent Union of Workers, Denniston.

9. In reference to the road, what do you say about it?—I was check-weighing at the time, but I am under the impression that the travelling-way would have cost very little money to have kept open.

10. Were any further steps taken after the receipt of this letter by your union?—I had a private conversation with Mr. Tennent on the matter. I met him one day on the track when going to town, and he spoke to me about it. His conversation was in support of this letter. I thought the matter over, and on Saturday afternoon spoke to him again about it. I told him then that I did not think his views were consistent with reason—that the Act said distinctly that those inlets and outlets had to be made within twelve months after the mine was open, and that it was not reasonable that the company should have them where they liked. The union then took the matter up, and laid the charges against him with the department.

11. Have you any other reason for having no confidence in him?—Yes. When Beirne got discharged at Mokihinui we came to the conclusion that we had no right to place any confidence in him under fear of dismissal.

12. What was his conduct like towards the men throughout the mine?—I do not know that he ever had anything to say to the men at all. I might state, for the information of the Commission, that when Mr. Tennent was placed in the position he holds there were six unions on the West Coast, five of which voted against him and one for him. When he asked us for our support we refused it.

13. *The Chairman.*] Had you any previous experience of him?—The general opinion of the miners was that he was not the man to suit them.

14. What was his previous experience; had he been working here?—I have no doubt that, so far as experience goes, he is capable of holding the position with any man in New Zealand.

15. Where was he employed in the district?—At the Brunner Mine, as deputy or overseer.

16. As far as you know, this is his first appointment as Inspector?—Yes, as far as I know.

17. *Mr. Cottrell.*] With regard to the two separate outlets, do you wish to say anything about them?—I do not think the Act is carried out in that respect in any part of the mine. It might be carried out in the Cascade. There is one travelling-road as required by the Act.

18. Do you consider it necessary?—Yes, it is necessary in any mine to have two roadways.

19. For what reason?—That a man should not be imprisoned there at the mercy of the company to say when he should come out.

20. And you are not allowed to walk on the main road when the road is working?—Certainly not.

21. *The Chairman.*] Do I understand you to say that it is impossible for a man to get out of the mine while the rope is working without infringing the Act?—Yes; if the rope is travelling.

22. Are there no back headings he can go out of?—Not that I am aware of.

23. Is there a return airway?—Yes; but the return airway does not constitute a back heading or travelling-road.

24. *Mr. Cottrell.*] What is the quality of the air in the return airway?—The quality should be good until you are at the first working-face, and then you would get all the refuse from the working-places. The return airway leads to the surface, far distant from the point of ingress.

25. Now, with regard to Hart's case. Tell us as concisely as possible the history of that case?—It was reported to me that young Hart had got hurt. The first intimation I got was that he had been carried out of the mine to Ryan's Hotel. Immediately I heard of it I saw the doctor and he told me it was a very serious case, and that he (Dr. Reid) had ordered him to the Westport Hospital. We had two inspectors appointed by the men at that time, to see to all accidents when they occurred. I saw them immediately, and asked them if they had seen the place where the accident occurred, and they said No, that they had never been sent for. I might say that there is a clause in our agreement that the two accident inspectors shall be sent for at the same time as the manager is sent for, to view the place where an accident has occurred. That is provided for in clause 22 of the industrial agreement of the 1st January, 1900, between the Westport Coal Company and the miners. The accident happened on the 17th August, 1900. I saw the inspectors the morning after the accident, and I believe they went in with Mr. Sowerby, the mine-manager.

26. What did you do?—On the following morning they came and reported what they had found. They reported on the Wednesday. There was a meeting of miners, and I and Mr. Patz were appointed to go down and see the boy. We went the next day (Thursday) and found him in the hospital. We had asked permission from the doctor to interview the boy. We questioned the lad as to the state of the place where he got hurt, and he told us distinctly there was only one sprag that had been put up, about 6 ft. from the rib-side—that is, the wall side. He said he was working at the time with a man named Bruhn. They had taken out two cuts, which constitutes about 7 ft. wide each cut, and in taking out the third cut the coal came away and crushed him.

27. What state did you find the boy in after the interview?—The doctor's evidence was that it was "a very narrow squeak."

28. On returning to Denniston did you have another meeting of the union?—Yes.

29. And was this letter authorised to be sent to Mr. McGowan, Minister of Mines?—Yes.

SIR,— Denniston, 14th August, 1900.

Acting under instructions from my Union, I respectfully beg to bring the following under your notice:—

Under the new system of coal getting in Denniston men are allowed to have charge of "coal-faces" who know practically nothing of coal-mining, and, in addition to this, the men have lads under their charge for whose safety, we contend, they should be responsible. Now, as I said before, these men being non-practical, and knowing nothing whatever of coal-mining, have not the slighest knowledge of the danger they run in working at a coal-face which is not properly timbered and spragged. Quite recently a very serious accident occurred under similar circumstances to those set forth. A place was being holed or undercut by a coal-holing machine, with a lad shovelling slack, when a great portion of the coal-face fell, seriously injuring the lad, who had to be carried out of the mine and conveyed to the Westport Hospital, where he now lies. The cause of this accident, we contend, is that, as I remarked before,

non-practical men being allowed to have a charge of "coal-faces." Now, Sir, the Government Inspector of Mines has never seen fit to visit the mine since the accident, and we now ask for a searching enquiry to be held as to the cause of the accident, as in our opinion Mr. R. Tennent is shirking his duty in allowing the Westport Coal Company to employ men who are really unsuited for the work they undertake, and also for Mr. Tennent not paying attention to the safety of life and limbs in mines by not visiting them when an accident does occur to ascertain the cause.

Trusting, Sir, that you will give this matter your most careful consideration.

I am, &c.,

Hon. J. McGowan, Minister of Mines, Wellington. JAMES PATZ, Secretary.

30. Was this the reply received?—Yes.

(1799.) Mines Department, Wellington, 18th September, 1900.

IN reply to your letter of the 14th ultimo, I have to inform you that the Inspector of Mines reports that, after examination, he finds all faces in the coal-mine at Denniston to be skilfully and properly worked, and the accident to the lad Hart, to which you refer, was not of a serious nature, although it was reported to the Inspector of Mines, as required by the Act. H. J. H. ELIOTT, Under-Secretary.

James Patz, Esq., Secretary, Denniston Coal Miners I.U.W., Denniston.

31. What sort of a miner was Bruhn?— So far as I know, he was never in a mine before he came here.

32. To the best of your belief he is not a practical miner?—No.

33. How long had he been working at Denniston?—Perhaps twelve months.

34. Did the Inspector visit the mine at the time of the accident or thereabouts?—No.

35. For how long after?—Not for some months afterwards. The usual practice in the case of accidents of this description is that the place should be fastened up and not touched until the Inspector has visited it. That was not done.

36. The place was not boarded up or closed?—No. As far as I am told, the coal was brought away and shot down as usual. I believe Mr. Sowerby did all in his power to show that there was no sprag used there. He did not keep anything behind, but still the work went on the same as usual.

37. *Mr. Harden.*] How long were you working in the Denniston mines getting coal?—Between five and six years.

38. Had you any cause to complain of the ventilation?—No; the system of working the mine then was totally different to what it is now.

39. In what way did the system differ?—There were no machines then; it was all manual labour.

40. *The Chairman.*] Do the machines deteriorate the air?—Yes.

41. *Mr. Harden.*] Have you ever worked in the mine since the machines came?—No.

42. Do you know of your own knowledge whether the system of ventilation is not the same?—No, I do not know; but I am told that it is very bad, and that the miners lose time is a proof.

43. What difference does the "iron man" make?—There is more powder used, and there is more smoke with the "iron man." A miner, when shooting down his coal, judges what amount of stuff will shoot it down. He cuts his coal in the first place, while the machines do not cut the coal. In the case of the machines the shooter is sent in to shoot the coal down without it being cut. He is working for day-wages, and the company finds the material to shoot the coal down with—that is, the powder and fuse. The result is that he uses powder to a greater extent than the miner does.

44. Is that your own experience, or what you have been told?—That is my experience.

45. How do you know if you have not worked in the mines since the machines have been used?—Well, you can have that as my opinion. I am prepared to show the records of the actual cost to the miners every fortnight before the machines came into vogue, and to test that against the Westport Company now.

46. Have the men ever complained to you about the ventilation in the mine?—Yes; it is through the men complaining that we have laid these charges.

47. Has the matter been discussed much at the meetings of your union?—It has.

48. Have complaints been made there?—Yes.

49. Have you ever drawn the attention of the Inpector of Mines to them?—Never.

50. The miners of your union are represented by two check inspectors?—They are.

51. Would it not be part of their duty, in your opinion, to draw the attention of the Inspector of Mines to any matter which they thought might injure the health of the men?—As far as that is concerned, I have not the slightest doubt it would; but, as has been stated here before, we have no confidence in Mr. Tennent, and they will not do it.

52. Have you any direct reason for not having confidence in him?—I do not know that I should give my private reason.

53. Can you give any reasons?—It is only a matter of opinion. I do not think Mr. Tennent did right in the Brunner disaster, and I do not think he has done right here.

54. Can you quote any instance where Mr. Tennent has failed in the discharge of his duty since he has been Inspector of Mines here?—Yes; I quote Beirne's case. The law says he shall not divulge matters, and he has divulged matters affecting the men.

55. Is that the only instance you know of?—That is the only instance.

56. Then, when you signed this letter to the Minister, as president of the union, drawing the Minister's attention to clause 44, it was to Beirne's case you were referring?—Yes.

57. Your union, we were told by the secretary, and I think you told us the same before, was antagonistic to Mr. Tennent from the first?—Yes, that is so.

58. That was necessarily before Beirne's case?—Yes.

59. You supported some one else as Inspector of Mines, I believe?—Yes.

60. If it is a fair question, may I ask you if you made application for that appointment?—No, I never made application for it.

61. You say you had not sufficient confidence in Mr. Tennent to make a complaint to him about the ventilation in the mine, and yet you said this morning that you have every confidence in his ability to carry out his duties. How do you reconcile those two statements?—He has the qualifications right enough, but I have no confidence in him; and I might be asked that question for a month without being shaken.

62. How have you gained that confidence in him for carrying out his duties?—I have no confidence in the man at all, but I know he is qualified.

63. Do you consider he has the necessary qualifications to enable him to carry out his duties properly?—Yes.

64. Have you taken careful observation of the way in which Mr. Tennent has carried out his duties?—I must have done so.

65. Is it from that observation that you think he has the ability to carry out his duties, or how have you formed that opinion?—A man forms an opinion of these things.

66. Had it not been for Beirne's case, would you still have confidence in Mr. Tennent?—No; I never had confidence in him.

67. Then, Beirne's case has had nothing to do with your want of confidence in Mr. Tennent?—Certainly not. In my opinion Beirne's case made no difference. It was only what I had expected.

68. *The Chairman.*] Did you know Mr. Tennent before?—Yes, in the Brunner, many years ago.

69. *Mr. Harden.*] With regard to inexperienced men working in the mine, can you tell us whether the number of accidents have been fewer since the machines were introduced than they were before?—I could not tell you accurately, but I will produce the books to-morrow morning. My opinion is that there have been more. Although there may not have been so many serious accidents, there have been more in number.

70. In the event of the main road of the different sections through which the men have to travel being suddenly blocked up or destroyed, would the miners be able to get out?—Only by way of the rope-road. In the Big Dip, at the time I was working there, there were two roads. Mr. Lindop has referred to three roads, but the men would not be able to find them. There was one haulage-road in my time, but there were not two travelling-roads, only one.

71. That was all that was required?—Yes; that was in the Big Dip.

72. And in other parts, were there travelling-roads?—Not that I remember.

73. In your letter of complaint you say that Mr. Tennent has shown distinct favour to the proprietors of the Denniston Mine by putting a wrong construction on the section of the Act referring to the outlets. Section 40 of the Coal-mines Act says: "Within one year after commencing the working of any bords, stalls, or longwall workings in any mine, there shall be made and completed at least two separate and distinct shafts or outlets to the surface from such mine." Will you tell us what part of the mine has been open for more than one year where there are not two distinct shafts or outlets from the surface of such mine?—I do not know of one part of the mine. The Ironbridge at the present day has only got one. So far as the Big Dip is concerned, there was a proper travelling-road. The road fell in, and we applied to Mr. Tennent to have this road reopened, and he replied that the company would close down the mine, and we came to the conclusion that he could not be trusted.

74. What did you do when you got this reply from Mr. Tennent?—We simply let the matter remain in abeyance for a time, and then wrote to the Minister.

75. Did you write to Mr. Tennent again?—No.

76. He replied. Still, you had no confidence in him?—No.

77. Did you not consider it reasonable to reply to that? He rather invites a suggestion from you?—He did not give evidence of it. He said that they could have opened a second outlet in Cedar Creek. We wanted the matter carried out according to law, and did not think that Mr. Tennent should talk in that strain at all. He had no right to look at it in that light if he has to look after the comfort of the men. It was a very trifling thing.

78. *The Chairman.*] I have always understood that it was the business of the Inspector to protect the men against themselves?—That is our opinion. The Act was there, and Mr. Tennent should have carried out our wish in that respect, as it was dangerous. The only way out the men knew was the main rope-road. I have not the least doubt there are other ways out, but the men must not go there.

79. Supposing there is danger to life, do you mean to say the men would not be allowed to get out?—They would in that case. There were not two travelling-outlets so that the men would know them.

80. Is that the complaint—that the men are not shown the ways out?—Our complaint in that letter is that the outlets should be made within twelve months after the mine is opened. There are many ways in Munsie's, but the men do not know them, and the men dare not go through them under a penalty.

81. Could not the men ask to be shown these ways?—They should not have to ask.

82. Have the union asked the management to show these men the way out?—No.

83. With regard to the accident to Hart, you say the custom is to close the place up where an accident has happened until the Inspector of Mines has visited it?—Yes.

84. Have you ever known a case where that was done?—Yes.

85. Will you tell us of it?—On Denniston Hill, in Mr. Hedley's case. He was nearly killed right out.

86. Do you know of any other case?—In Munsie's jig, in the case of a man named Hunter, who was crushed by a truck coming down on him; and Johnston, in the Big Dip; and John Young, in the Ironbridge.

87. Do you know of any other case?—Not just now.

88. Was Hart conscious when brought out?—I did not see him until I got to Westport.

89. The other two cases you mentioned were very serious?—Yes.

90. Were they quite conscious when found?—Hedley was unconscious, but I do not think Hunter was.

91. Your representatives were allowed to go in and inspect the place where Hart was hurt?—Yes; they were allowed to go in the next day, and I believe, from what the inspectors say, that the place was standing exactly as it was when the lad was taken out.

92. When your men had examined this place with Mr Sowerby, did they report to the union?—Immediatey.

93. Did you ask for an inquiry into it?—Yes; we asked the Minister for an inquiry about a week after.

94. Did you ask for an inquiry into this accident, or was it on the general complaints?—For this accident alone, and afterwards we asked the department to embrace the Mokihinui matter in connection with Beirne's case with it.

95. What reply did you get to your request?—After a time we got intimation that we could take the case before Mr. Hawkins, at Westport; but we were quite satisfied to have it under this Coal Commission.

96. *Mr. Lindop.*] You know that the Ironbridge section goes right through the hill, and that therefore there must be two entrances?—Certainly; but it is a question of complying with the Act.

97. *The Chairman.*] Do you think it would be better if the machines were withdrawn from the mines?—I say if machinery is good we should have it, but I am thoroughly of opinion that it is not good. It is neither good from the financial point of view or from that of the consumer's. The same quality of coal is not being produced by the machines, within 17 to 20 per cent., as that produced by the picks. I have travelled a little bit lately, and I am quite convinced that if the Commissioners go to the large centres they will find that the article is not so good. If evidence is taken from the engineers of boats they will also find the same there. The machines cannot keep the coal so clean as the miners can. If working on the rise, and the machine and bord is set on level, they strike the bottom before they get to their destination of the holing. If it is soft fireclay or soft stone in the bottom it is simply chopped or knocked up into small dirt, and goes away as coal. Again, if it is a bad roof, there is no way of keeping it up; the mullock has to go down amongst the coal. And the system of filling the coal by day-labour is not so clean or so beneficial to the consumer by at least 20 per cent. As regards these new people in the mine, what do we find? We find the tubs often coming out stacked with black stone. The man does not know the article he is dealing with, whereas, if he were a practical miner, he would, and would be ashamed to put out such stuff. If the machines were kept within the same bounds as the men—that is, in a place as narrow and the same height as the men—it would be impossible for them to pay. It is only by taking out places 9 ft. high, as against 7 ft. places worked by miners, that they can be made to return a profit. The work of shooting being done by wages-men who have not to supply their own powder, an extra quantity is used, with the result that the coal is broken and the ventilation is made worse. When I was in Christchurch and Wellington I made it my business to call on some of the coal-dealers, some of whom had invited me, and I was convinced that the article sent away was not so good as it used to be by from 17 to 20 per cent.

98. How are the miners interested in this?—The miners were more comfortable before.

99. How does it affect the miners if the company sell an inferior quality of coal?—The mine is now working twenty-four hours—that is, three shifts—as against eight hours. We say the machines are not paying the company, and the system of working is not so comfortable as the old system.

100. What business is that of the miner?—I can understand the objection to working the three shifts?—We say that the thing is not paying, so why do they not let us go back to the old system? Were the competition in the market as keen as it used to be, the present article would not sell.

101. Why do you want to go back to the old system? The only reason you give me is your objection to the three shifts?—If the machines are a profit to anybody we should have them, but they are not, in our opinion, and our homes are not so comfortable nor our work.

102. Are the miners earning less by the machines than they were by piecework?—I think there is not much difference. If there is any difference it would be a little less, but not much. Our miners are now getting from 10s. to 12s. a day—that is, day-labour.

103. Is there any strong feeling against the machines?—The only feeling is what I have told you, that in our opinion, they are not producing the article they used to do; they are not a profitable thing, and we would rather have the old system.

104. Do you look upon it as a serious matter?—Yes; it is not so comfortable in many ways as it used to be under the old system.

105. Wherein does the system differ, except that you have to work at night?—Well, we do not like it.

106. *Mr. Lomas.*] Does it make it more difficult or dangerous to have the bords taken more than the usual height?—Yes.

107. Does it make it more difficult to take down the tops in these high bords?—Certainly.

108. *The Chairman.*] What is the height you can work with a machine?—The machine has nothing to do with the working of the coal except the holing of it.

109. Does the company not get more coal?—I do not think so; not for the quantity of men as compared to the old system.

110. *Mr. Lomas.*] In your judgment, is more coal lost in taking out the pillars in the system adopted under the machines than under the old system?—In my opinion, Yes; and it is more dangerous.

111. *Mr. Lindop.*] Your objections to the machines are the small coal, longer hours, and that they do not pay the company?—Yes, that is my opinion. Small coal and dirty coal, also bad air.

112. The objection that they do not pay the company does not concern the miners?—No; but certainly would, to a very large extent, if the competition in the market was as keen as of old.

113. How do you arrive at your estimate of the small coal?—That is only my opinion.

114. You know the pillars in the Ironbridge, Cedar Creek?—Yes.

115. Is it good coal?—Yes.

116. You know the coal in the Kiwi section?—Yes.

117. Is that good coal?—It is fair coal. It is a matter of two districts.

118. If you are working in good coal with the machines you get good results?—I do not think so.

119. With regard to the night-work, if our output depended upon the miners, would not our output be reduced?—I think if the miners were working with the picks they would increase the output, as two shifts have produced 12,000 tons a fortnight.

120. *The Chairman.*] Can you give the Commissioners any suggestions as to alterations required in the regulations concerning coal-mines?—I would like a little time to consider. I may say the matter is under consideration, and will come before the Trades Council next week. It is the intention, I understand, of the Trades Council to come before the Commission at Greymouth.

121. There are three broad questions to be dealt with—the question of the amendment of the Coal-mines Act and regulations, the question of the survey of coal-reserves, and the question of their most profitable development?—Yes, I think those are the three questions we are going into. The position we have taken up is that we will help you all we can in that way.

122. *Mr. Proud.*] Was there much coal, in your opinion, lost in the Big Dip section?—Yes; in my opinion one-third is lost to the country; this is the opinion of all practical miners who have worked in it, and I, as a practical miner, worked in the same. I do not wish to blame the Westport Coal Company in this matter, as it has been the custom with all companies on the West Coast to work their mines in this slovenly manner, and the loss of coal to the State is no consideration. I think that it is the duty of the Inspector to see that these mines should be worked to the advantage of the State, and not be worked to the loss of the State. I think if the Inspector has not got the power to say in what way a mine should be worked, or what would be a fair percentage to leave behind, the sooner the law is altered to give him that power the better for the State. I am still of opinion that where drainage can be got it should be resorted to and be compulsory, in this shallow and high country on the West Coast, as it is impossible to pump storm-water from the mines, as every break in the surface increases the amount of water going into the mine, and it would be impossible to judge what pumps would be required to cope with it. I consider that the Big Dip was lost for the want of drainage.

REGINALD MCGRANE examined.

1. *Mr. Cottrell.*] You are a practical miner of how many years' experience?—Upwards of thirty years.

2. Did you see the face that was worked by Bruhn with the machines?—Yes.

3. Speaking as a practical miner, do you consider it was properly spragged?—No, I do not.

4. What spragging do you think should have been there before it was holed?—Angle or face sprags.

5. How many sprags did you find there?—I did not see any.

6. Did you go there just at the time of the accident?—No, a day or two after the accident.

7. And if there were any they would have been removed?—I did not see any sprags.

8. Looking at the face as you saw it the day after the accident, what sprags do you think should have been put in before that face was holed?—At least two angle-sprags.

9. What length do you say the face was?—It might have been 6 yards wide.

10. How high?—About 9 ft.

11. When you saw it how much had been holed?—About three-parts across.

12. Which side had it been started from?—The left-hand side.

13. How many sprags do you think should have been put in?—Two angle-sprags, about 5 ft. apart. The first would be about 5 ft., and the next 7 ft. or 7 ft., and a third one if necessary.

14. Would you think more than three would be necessary in that face?—Not more than three, I think, would be necessary.

15. Do you consider that accident to young Hart would not have happened if that place had been properly spragged?—I do not think it would.

16. *The Chairman.*] Is this the only accident in the mine from the face that had been holed with the machine?—I am not in a position to know. That was the only accident that was brought under my notice particularly.

17. Have you ever worked a machine?—No.

18. I suppose you have holed many a hundred faces?—Yes.

19. And in a face 18 ft. or 20 ft. wide, how would you go to work?—You set your sprags before you start to hole.

20. How many?—If you start a hole in one part of your face, you set a sprag before you start.

21. How many sprags would you have in your 20 ft.?—Working by hand you only hole 8 ft. or 9 ft., and then shoot that down.

22. How many sprags would you have in 8 ft.?—If you are working in good solid coal, one sprag would do; if upon loose coal, you would have two sprags.

23. In which case does the mine render the most danger—what is the depth of his hole?—3 ft. or 3 ft. 6 in.

24. And if in case where the mine is crushed?—As a rule you can hear the coal working if she is likely to come away.

25. With the machine is there any man under the coal?—The boy is the nearest to the coal-face.

26. How near is he?—At the first start he is not close up to it, but as the machine gets further on he will be.

27. Touching it?—Yes.

28. The barrel of the machine is about 7 ft. long, I understand?—I think it is somewhere about that.

29. Who has the best chance of getting away—the man with the machine, or the man holing with the pick?—I should say the man with the machine.

30. *Mr. Cottrell.*] But what about the boy?—The boy is placed in pretty well the same position as the miner.

31. *The Chairman.*] Do you think that because there seems to be at first sight less danger with the machine, that it leads to less care in spragging?—I could not say.

32. *Mr. Lomas.*] Is the boy ever allowed to remove the slack under the coal with his hands?—I could not say. I have not worked the machines. The boy has a special tool to work it out with.

33. *Mr. Harden.*] You said if a sprag had been put up the fall would not have taken place on the occasion Hart was hurt?—Yes.

34. Is it not a fact that you were working some time in December last when you had only one sprag, and Mr. Tennent came along and made you put up another?—Yes.

35. Before Mr. Tennent came along, did you think you were working safely, after your thirty years' experience?—Yes. The place we were holing would be about 8 ft.

36. What was the width of the face?—About 6 yards.

37. And you had only one sprag?—Yes.

38. Were you putting in the first holing or the second?—The first holing.

39. Then you were taking what Mr. Tennent considered a risk, apparently?—According to Mr. Tennent we had not sufficient sprags, but according to my judgment I thought we had.

40. You were mining?—Yes, with the pick.

41. As an old miner, I suppose, taking the face and condition of the coal, you use, to a great extent, your own judgment?—Yes, you have to use your own judgment, to a certain extent.

42. *Mr. Lomas.*] Had you any sprag up when Mr. Tennent came into that place?—Yes, we had one sprag up in the 8 ft.

43. Where did he want you to put up the other sprag?—About 3 ft. from it.

44. Was that on the side of the sprag you were working?—The sprag was in the centre, and we had holed a little bit on the side of it. The sprag recommended by Mr. Tennent was in the middle of the face.

45. How much holing had you done from the sprag towards the centre of the face?—About 4 ft.

46. And you had no sprag there?—No.

ARCHIBALD DELLAWAY examined.

1. *Mr. Cottrell.*] You are a miner, working in the Denniston Mine?—Yes.

2. Have you been working there long?—Five years.

3. I think you were appointed an inspector by the Denniston Miners' Union to inspect cases of accidents in the mine?—Yes.

4. Do you remember an accident happening about August, 1900, to a boy named Hart?—Yes.

5. Were you called upon by the proprietors, or anybody else, to go and inspect the place?—Yes, by the mine-manager, on the night after the accident. We were on the back shift. The accident happened between 11 and 12 at night, and I was called between 3 and 4 o'clock the next afternoon.

6. What did you find—what was the condition of the face?—It was a coal-face, about 9 ft. high and about 20 ft. wide. It had been holed by machines.

7. What was the condition of the face when you saw it?—There was between 30 cwt. and 2 tons of coal which had come away from the face.

8. How much coal had been taken out of that place?—There would, perhaps, be two or three trucks holed out by the machines, but I would not be certain.

9. How many sprags did you find set?—Just the one sprag and two chocks. The chocks are put there to keep the coal up. They were made of five or six cap-pieces. They were to support the bottom, not the top.

10. They would not prevent the face coming away?—No.

11. What was the length of this particular sprag?—Between 5 ft. and 6 ft. long. The other chock was 4 ft. or 5 ft. away from near the middle of the coal. The cap-pieces were about 2 ft. 6 in. long. They were built up under the floor of the coal.

12. Had the coal come away from the place where there was no sprag?—Yes. The coal had come away from the face.

13. How far from where the sprag was set?—About 4 ft.

14. There was about 15 ft. of coal where there was no sprag at all?—Yes. Very nearly 10 ft. of the face came away—nearly half the face.

15. Was there not about 15 ft. of the face without any sprag at all in it?—Yes, just a chock underneath.

16 Do you think that if another sprag had been put there the accident might have been prevented?—Yes, I do.

17. What is the rule as to spragging: how many should be set?—According to the rules of the Coal-mines Regulations one has to be set every 5 ft.

18. Were any instructions issued as to what should be done in that place?—I heard the mine-manager give instructions to two men to fill the coal, to let us see if there was any sprag under the coal.

19. That was the coal that had fallen?—Yes.

20. Are you aware whether the place was closed up until after the Inspector of Mines had seen it?—I did not work in that district, but the coal, was filled out that very night.

21. Were you satisfied there was no sprag there?—Yes, I was.

22. Did you see that place again afterwards?—No. I went back twice. The first time I did not see anything. The manager said he could not find any sprag; and as we could not, we reported to our union that there was no sprag there.

23. Was exception taken to you for working in a 9 ft. place with no sprag?—Yes; I was brought before the Court the other day for breach of the Act.

24. Were you punished?—Yes, I was fined 10s. and costs.

25. Who laid the information?—The mine-manager, Mr. Sowerby.

26. Do you know anything about the ventilation of the mine?—I knew a lot about it at one time, but not now.

27. How long ago?—From six to eight months ago.

28. What was the state of the ventilation then?—Very bad.

29. Have you known men require to go out into the air on account of it? Did anything happen to you?—Yes; I got very giddy and sick, and could not work any longer.

30. How often did it happen to you?—It occurred a lot of times. I had to knock off an hour and two hours a day through the bad air in the Kiwi district.

31. Can you tell us the names of any one else you have known to be affected by the bad air?—Yes; there were five or six of us who had to go home—Bottom, Peacock, Franks, and Miles. They all went out when they felt it was knocking them down.

32. Do you know if any of them had to be carried out of their working-places through bad air?—I know a deputy who had to be led out at one time, nearly two years ago. Bill Mason was the man. That was in the section called Leech's jig. He was shooting on that particular day.

33. Have you known of complaints from other sections of the mine?—I have heard of complaints, but never had any experience of them.

34. How many outlets are there to the mine?—I could not say.

35. Are there any travelling-roads?—No; they are all main jig-ways, as far as I can tell, in that particular section.

36. And if the rope is working, can you get out?—Only when the rope stops.

37. Have you worked in the Big Dip section at all?—No.

38. *Mr. Harden.*] Were those the only occasions when you were working in the Kiwi section where you had to knock off an hour or two sooner?—I have had to leave work a lot of times. I have also found the air bad in other sections.

39. Did the air ever overcome you?—Yes; in Leech's jig. I have had to leave there.

40. How long had you been working in the Kiwi section?—Twelve weeks—from the beginning.

41. You said you knew the ventilation to be bad over six months ago: how long had you been working there then?—Very nearly twelve months, I suppose, in the Kiwi section.

42. Have you been back to it since?—I have been out of it three months since that part of the mine was opened.

43. How long has it been opened?—It will be getting on for two years now.

44. How long have you worked in Leech's jig section?—From four to eight months.

45. After you left the Kiwi section?—No, before I went to the Kiwi section.

46. Where are you working now?—At the Kiwi pillars.

47. How is the ventilation now?—Very good at present.

48. What has been done to cause the improvement?—There are more outlets.

49. Did you complain about the want of ventilation to the Inspector?—No; I complained to the mine-manager.

50. *Mr. Lindop.*] You spoke about being sick at Kiwi: I suppose it was at the time we were opening up?—After that, too.

51. Why could you not have spoken about this?—I reported it to Mr. Sowerby and Mr. Milligan several times.

52. At the time you were working up there you were working on day-wages?—Yes.

53. After shots were fired you have plenty of opportunities to go somewhere else?—Yes.

54. Have the deputies ever forced you to go to any place?—They have said, "This place is fresh; you can go in there."

55. Seeing that we employ two or three hundred men in this mine, do you not think we may expect some to be taken ill sometimes?—Yes.

56. Do you not know that during the last fortnight three men have fallen sick? Is it not natural that there should be some sickness sometimes?—I have known men to be sent into places after other men have been sent home.

57. The accident occurred the last thing at night?—Yes, between 11 and 12.

58. You were out of the mine at the time?—No, I was not out of the mine.

59. Was there any delay in calling upon you to inspect this place?—I do not think the mine-manager could have called me any sooner than he did. I knocked off work at 12.30 that night,

and went home to the breakhead. The next morning the mine-manager said to me, "You might come out an hour or two earlier and see that place." John Moye, the other inspector, was with me. He had been on the back shift.

60. *The Chairman.*] Were you satisfied that things had been left in exactly the same state as when the fall occurred?—Yes; I was quite satisfied there was nothing touched.

61. *Mr. Lindop.*] With regard to the sprags, if you had had one of those chocks in would you have been convicted?—I could not say.

62. *Mr. Cottrell.*] When you were coming out from your work did you meet anybody with a constable going in for this boy?—No. The boy had been carried out of the mine.

63. When you had to go out of the mine on account of being ill, was it due to the ventilation or otherwise?—It was due to the want of ventilation through the powder-smoke and bad air. There was occasional cases where black damp was blown out of the bottom.

64. *Mr. Lomas.*] Where the coal came off the face was there a back?—It went in a V-shape and burst out. It came out in a wedge-shape, and the thickest part would be about the centre of it.

65. Do you know if this method of spragging with the chocks is common in the mine?—Yes, amongst the machines.

66. Do you know whether there is more than one road in and one out?—There are six or seven different outlets.

67. Are they all used as rope-roads?—No; there are roads out to the outcrops. You have to go along the main road to go out and go in. You have to travel a haulage-road or jig-line.

68. Do you ever remember the Inspector going into your place and asking you about the state of the ventilation?—I remember the mine being bad on one occasion when Mr. Tennent came in. He said he would come back the next day and see if it was bad. That was in the top section.

69. Did you see the Inspector the next day?—I cannot say whether he came back or not. I was somewhere else the next day.

JOHN BROWN examined.

1. *Mr. Cottrell.*] You are a filler in the Denniston Coal Company's employ?—Yes.

2. Have you experienced any bad air in the mine since you have been there?—Yes.

3. Has it affected you in any way?—Yes; it has knocked me unconscious.

4. When?—About twelve months ago.

5. What happened?—I was filling a box, and said to my mate that I felt as if I was going off to sleep. He said, "What is the matter?" I said that I did not know, and that I would go down to the air-course. I did not remember any more until I heard my mate singing out. When I came to, they were putting water over me and rubbing my hands.

6. Have you on other occasions felt the effect of bad air in the mine?—Yes. Since that I have been sick, but not bad enough to go home.

7. Where abouts was this bad air?—In the Cascade, in Bradley's section.

8. *Mr. Harden.*] On the occasion you fainted how long had you been in the mine that day?—About three-quarters of an hour.

9. Who was working with you?—Harry Applegarth.

10. Were any others working with you in the same section?—Yes; two on the opposite stenton.

11. Were you the only one overcome?—I was the only one rendered unconscious, but the others felt it.

12. When you came to, where did you go?—Sladden took me home.

13. Did the others go back to work?—Yes, as far as I know, they did.

14. Had they been doing any exploding?—Yes.

15. How long before you went in?—It was not when I went in.

16. Was the powder-smoke still about?—Yes.

17. Was the air all right in the main channel?—It was a bit foggy—not too good.

18. How long did you work in that section altogether?—About twelve months, as near as I can guess.

19. Was the ventilation good, as a rule?—No.

20. Did you make any complaints about it?—Yes.

21. To whom?—Mr. Dunn and Mr. Harris.

22. And was it improved or remedied?—They gave us compressed air to blow the smoke out.

23. When you left that section was it all right?—It was better when we finished up.

24. How do you find it at Ironbridge?—It is smoky some days.

25. It is necessarily so, I suppose?—It is always so more or less.

26. Is it unavoidable, that the air should be like that, to carry on the operations of the mine?—Yes. They can help by putting up brattice.

27. Is it done?—No, not always.

28. Did you ever see the Inspector going through the mine?—Yes.

29. Did you ever complain to him about the air?—No.

30. Did you point out the fact to him?—I never mentioned it to him.

31. Did you ever point out to him that the brattices were not put up?—No.

32. Did you ever hear any other miner do so?—No.

33. *Mr. Lindop.*] You say you did not feel very well when you were taken ill, and you went out to the level?—I told my mate I felt as if I was going off to sleep, and I would go down there to see if it would make me any better. I did not remember anything more.

34. Applegarth did not accompany you?—I went down myself.
35. Who discovered you?—Mr. Harris.
36. Your mate did not think you were so bad, or he would have accompanied you?—No.
37. Do you not think you are as likely to be taken ill out of the mine as in it?—No, not that way.
38. *Mr. Cottrell.*] Are you satisfied it was bad air that overcame you, and not some other illness?—Yes.
39. Are you in the habit of taking fits?—I never had one before.
40. You say they used compressed air for getting the smoke out?—Mr. Bunn said it was to keep us in air.
41. What objection had you to that?—I had no objection, but it used to make us sick. Where the air is bad inside it is not good. That is what the doctor told me when I was fetched home.
42. You say that compressed air is bad?—I say it is bad where the air is bad.
43. *Mr. Lomas.*] What shift were you on?—On our side there was only one shift going. It was the front shift.
44. You had been in three-quarters of an hour?—Yes.
45. And the air was bad then?—Yes.
46. How far were you from where the air was travelling?—There was none at all going up where we were.
47. If they forced compressed air into the place was there no means for it to get out?—No. There was no brattice.

JAMES HARPER REID examined.

1. *Mr. Cottrell.*] You are a qualified medical man, and doctor to the Denniston Mine?—Yes.
2. Do you remember, about August last year, being called in to attend a case of accident to a lad named Hart?—I do not remember the date, but I remember attending Hart.
3. What condition was he in when you first saw him?—In my opinion he was in a rather serious state.
4. In what way was he hurt?—About the forehead principally.
5. Probably the result of a fall of coal?—Yes.
6. Did you order him to be sent down to the Westport Hospital?—Yes.
7. You considered the case such that the patient ought to be sent to the hospital?—Decidedly.
8. It was not a case to be dealt with on the Hill?—If he had had his parents here I might have thought it was, but it was quite a case for the hospital.
9. *Mr. Harden.*] You thought he would get better attendance at the hospital?—Yes.
10. Where was he when first you saw him?—At Ryan's Hotel.
11. How long was he in the hospital?—I did not get word when he left. I should think he was about a month there at least.
12. *Mr. Lindop.*] We had a report from you on this case?—Yes.
13. You could not say at that time whether the case was serious or not?—I told you at the time to report it serious, rather than find out afterwards that it was serious.
14. As a matter of fact, it did not turn out to be so serious as you thought?—Not at all. It was not so serious as I thought it was. The most serious part of the accident, according to my view, was the knock he had received in the head, and that turned out to be absolutely trifling. It was swollen up so, however, that you could not feel the bone. There was an ominous crackling there, and I rather thought the skull was broken. The eyebrow was torn completely away and the tear-gland was jutting out. That had to be replaced, and he had one or two cuts about the scalp. Those were the things that were serious, because blood-poisoning might have set in. We used precautions, and I think they saved the boy.
15. You would not call that a trivial accident?—No, certainly not. I always look upon accidents as serious where there are any doubts.
16. During the last two or three years have we not had fewer serious accidents than ever we had?—Decidedly we have during the last two or three years.
17. *Mr. Lomas.*] Was the boy bruised about any other part of the body?—Yes; knocks about the ribs. The arms were all right.
18. *Mr. Proud.*] Had you not taken precautions might not the case have turned out to be fatal?—I would not like to say. Blood-poisoning was the only thing that could have caused fatality. The whole space of the eye being opened up, any dirt getting into that would have caused trouble; but that was the secondary part of the injury, not the primary.

JOHN COPPERSMITH examined.

1. *Mr. Cottrell.*] You are a miner working in the Denniston Mines?—Yes.
2. Do you remember the accident that happened to young Hart in the Denniston Mine?—Yes.
3. I think you were working there about the time, where you not?—Yes.
4. Did you see the place before the accident?—No; I saw it while the accident was on.
5. Will you tell us what happened?—The machine was finishing the last cut.
6. Where was the boy?—He was just where the last cut was made. He was shovelling from the holing before—the centre holing—just about the end of the second cut.
7. What happened?—The coal came off the face, about 30 cwt. or 2 tons. What saved the boy was the slack. He was sitting opposite the slack when the coal came away. When I saw him he was lying longways alongside the heap of slack. The coal off the face was partly on him. We thought it was on him. Four of us tried to shift one lump, but could not.

8. Did this coal come from above?—It came from about 6 ft. from the top.
9. Did you notice what sprags were there?—Yes. There were two chocks underneath and one sprag. The sprag was about 6 ft. from the place where the first cut was put in, and the chocks were just underneath the cuts.
10. Do you think, if another sprag similar to the one already set had been properly set there, it would have prevented that coal coming down?—Yes, it would have done so.
11. What did you do with the boy?—We carried him out and took him home on a stretcher.
12. Was he badly hurt?—He was badly cut about the eye, but there were no limbs broken. He was covered with blood about the face.
13. Did you inspect the place afterwards?—Yes; I shot the place down the next night.
14. How far was the third cut in?—About 18 in.
15. Who gave you instructions to shoot down the place?—Mr. Winter, the man in charge.
16. What was the width of the bord?—20 ft. I measured it, and it was all 20 ft.
17. How many sprags should there have been there?—According to that, there should have been three sprags.
18. Do you think it was necessary to have three sprags set in a place like that?—Yes, I do. The night following, the man holing it put in three sprags.
19. *Mr. Lindop.*] You say if there had been another long sprag in the accident would not have happened?—Yes.
20. You are judging in the light of after-events?—Yes.
21. *Mr. Harden.*] Do you know Bruhn?—Yes.
22. How long had he been working those machines?—About eighteen months, I think.
23. Do you know whether he had had any previous accidents?—I do not know.
24. I suppose there was plenty of timber for him to use?—Yes.
25. *Mr. Lomas.*] What part of the face was it where the thickest part of this coal came down? About the centre. It was the deepest cut where it came away.
26. You think the second sprag would have saved the coal coming down?—Yes.

JAMES CADMAN examined.

1. *Mr. Cottrell.*] What are you working at?—At the coal-cutting machines.
2. How old are you?—Twenty years.
3. What section of the mine are you working in?—Ironbridge.
4. Have you ever noticed any bad air in that part of the mine?—Yes, on a few occasions I have.
5. Has it ever affected you?—Yes.
6. When?—About twelve months ago now.
7. What was the effect of it upon you?—I was carried out.
8. You were overcome?—Yes.
9. Who carried you out?—My mate, Ted King.
10. Have you been overcome on any other occasion?—No; I never stopped in long enough after that.
11. How long did you stop in?—If I felt the air heavy I did not stay.
12. How did you get out when once you were in your place?—I got out to where the air was good.
13. Do you find you have to do that even now?—No, not now.
14. The ventilation is better now?—Yes, a lot better.
15. Was there any other occasion on which you were affected at all particularly by the air?—No.
16. *The Chairman.*] How many hours had you been in the place on the occasion you were affected?—I think we were working there about four hours.
17. *Mr. Cottrell.*] Have you had to go home since then from the effect of bad air?—No.
18. Do you know any one else who had been affected by bad air?—There was a boy there about that time—Jack Cannew—who was affected just the same as I was, and who had to be brought home.
19. *Mr. Harden.*] How long had you been working at this class of work when you were overcome?—A couple of months, I should say.
20. You were quite inexperienced?—Yes.
21. *Mr. Lindop.*] Where did it happen?—In the Kiwi section.
22. Were you working on day-wages?—Yes.
23. What was the cause of it?—It was when we were driving the No. 2 heading. They fired it there. It was through the powder-smoke.
24. What made you stop in?—I do not know. My mate stopped. We did go out before that.
25. You did not go home?—No; we went back and were overcome, and then went home.
26. Did you walk home?—Yes.
27. And the same thing happened with Jack Cannew?—Yes.
28. Since then you have learned a little more sense, and it would not occur again with you?—No.
29. *Mr. Cottrell.*] I suppose if the air had been good the smoke would have cleared away?—Yes.
30. Was the air better when they broke into the No. 2 heading?—Yes.
31. *Mr. Lindop.*] In this case you were making a hole into the No. 2 heading?—We were driving the heading. We had not come to that yet.
32. Naturally, there must be smoke where you are driving in a heading to make the air-connection?—Yes.

ROBERT TENNENT, Inspector of Mines, re-examined.

1. *Mr. Harden.*] When did you first inspect the mines at Denniston?—In July, 1897.
2. At what intervals after that did you generally inspect the mines here?—Every two or three months.
3. How did you find the ventilation of the mines, on the whole?—Generally, good.
4. Were there any particular instances where you did not find it good?—I have seen an odd place sometimes not so good.
5. Did you take any steps in the matter?—Yes; sometimes brattice would be wanted, which would be done at once.
6. Did you have any complaints from any of the miners?—Never a complaint.
7. Was your attention ever drawn to the fact that a man, or men, had fainted on account of the bad air?—Yes, I was told on one occasion.
8. What occasion was that?—At Ironbridge, in the Kiwi district.
9. Were you told who it was?—I cannot remember his name. He was an extra machine-man.
10. Did you inspect the place?—Yes.
11. How did you find it?—It was right enough when I was there. It was 11 o'clock at night I met the man in the mine. I made it my duty to do so.
12. The next charge against you is that you shirked your duty by allowing inexperienced persons, with a boy or youth under their control, to work in the mine. Have you ever found an inexperienced man to have charge of a coal-face at any of the machine-places?—I have met machine-men who have not been brought up to coal-mining all their lifetime. Sometimes you get a quartz-miner.
13. From the nature of the work, do you think a quartz-miner is capable of taking charge of a place?—The principal work is the spragging of the coal.
14. Which class of miner have you found the better for that?—I have always found the machine-places more efficiently spragged than those of the colliers'.
15. Which class, the coal- or gold-miner, is the most capable in that respect?—The quartz-miner is generally the more particular. He is very particular.
16. Do you think quartz-miners are men fit to be trusted with that class of work?—Yes; I have never found them faulty in the work.
17. When you say you have always found the machine-places better spragged than the colliers' places, are you referring to the men here?—Yes, at Denniston.
18. You remember the accident to Hart?—Yes.
19. Where were you on the 7th or 8th of August?—At Cardiff.
20. And you received the report of the accident on the 15th?—Yes; the date my stamp is on it.
21. Did you take any steps then in connection with the matter?—No.
22. Where did you go to?—I was telegraphed to, to go to Blackball.
23. Do you remember what date you left for Blackball?—I was there two days. I have a telegram of the 15th stating that a fatal accident had occurred.
24. And on your way you received this letter?—Yes.
25. Did you get any other communication from the management here about this case of Hart's before you got the telegram from Mr. Eliott?—No; the telegram was the first intimation I got. I made a stay at Reefton at the time, to inspect the quartz-mines.
26. This is the correspondence in reference to the matter?—Yes. [See exhibit No. 1.]
27. What is the usual practice with regard to accidents when you are advised they are not serious?—I had been here about four weeks before the accident, and did not think from the nature of the report that it was a serious accident.
28. I notice, from what Mr. Sowerby says, the doctor did not know whether it was serious or not?—I thought it was not serious. I may say that there is an understanding between the management and myself that every accident has to be reported.
29. Would you only hold an inquiry, or go up at once, when an accident is reported serious?—Yes, anything in the shape of a serious accident.
30. *The Chairman.*] You got a report on the 15th August as to the accident. On the 23rd August the Under-Secretary wired to you asking if you had received report of a serious accident to a lad in the Denniston Coal-mine, and directing an inquiry as required by Act. On the 24th August you wired to the Under-Secretary: "Report not received of recent serious accident to lad in Denniston Coal-mine. Have wired for particulars"?—I did not know that was the accident I had to report on. I wired to Mr. Lindop then.
31. Mr. Sowerby advised you on the 8th, of the accident to Hart: where did you get the authority for thinking the lad was only slightly injured?—I just took Mr. Sowerby's word for it, and thought it was a slight injury.
32. *Mr. Harden.*] Have you prepared a statement showing the number and percentage of accidents in the mine?—The certificates of the accidents are here. [Produced.]
33. Is this a true statement setting out the percentage of accidents?—That is the statistical statement prepared by myself.
34. Has the rate increased or decreased of late?—It is gradually decreasing. The first year (1898) the cost was 0·29d.; the second year (1899), 0·12d.
35. *The Chairman.*] What does this decimal of a penny mean?—It is 1d. per ton on the coal raised. I divide the moneys paid out by the number of tons of coal raised. The company pays ½d. per ton towards the Accident Fund. I take the total moneys expended on account of accidents, and divide by the output.

36. *Mr. Harden.*] Can you tell us whether there have been more or fewer accidents in 1900 than in 1899?—Fewer.

37. Do you know the number of accidents for 1899?—I do not count the numbers.

38. What serious accidents have there been since you came here as Inspector?—One man lost his life by the explosion of powder in the Cascade section. He died a week or so after the accident. His name was Nicholl. That is the only fatal accident.

39. Is there any other of a more serious nature than that to the lad Hart?—One happened to a deputy at the beginning of the year. A runaway truck struck him while he was working on the roadway.

40. Was he badly smashed?—Not badly hurt, but he was off work a considerable time.

41. Was there any other accident during 1900?—Colvin was reported to have been struck by some loose coal at a machine-face. He was a filler, and was filling loose coal.

42. Was he badly injured?—No.

43. Was he off his work long?—About a couple of months, I think.

44. Is there any other case?—I think that is all that occurred during the year.

45. Taking the number of accidents in this mine, with your experience of it, and comparing it with other mines, how does it stand?—It is very light compared with the extent of the workings.

46. It is stated that you distinctly favoured the proprietors of the Denniston mines by not compelling them to provide two separate outlets from the mine fit for workmen to travel, in accordance with section 40 of the Coal-mines Act, and also that you put altogether a wrong construction on this clause. You have heard what Mr. Foster said about that. Are there any parts of the mine "without at least two separate and distinct shafts or outlets to the surface from such parts of the mine"?—No. We could not work these mines without two passages. The ventilation would not work.

47. Then, in the event of the main inlet being blocked up by any cause whatever, is there always an out-road for the men?—Yes, in every part of the mine.

48. Are they intricate or difficult for the miners to find?—They are directly on the faces.

49. Was it so at the Big Dip at the time you received that letter from Mr. Patz about it?—At that time it was. We had other outlets. The road going up there was shut off as the pillar workings were getting exhausted, but we could not keep it open.

50. What other means of exit were there?—There were other two, and there was a direct road made to the faces, to the engine-road. In connection with the Big Dip I may say it was very difficult ground to exhaust when going to the end of the workings, and unless we had a second way to the pillar we would not take it out. We made provision that there should be a second way for the men to the pillar.

51. Were you ever applied to by the miners as a body, or by any individual on their behalf, to have these separate roads made?—Nothing beyond the correspondence which has been read in connection with the Big Dip. It was open all the time until the work got closed on it. It was not made expressly for a travelling-road. It was an old haulage-road and cut out.

52. *The Chairman.*] Was it safe to use?—Yes, it was a first-class road.

53. *Mr. Harden.*] They say that you distinctly shirked your duty in allowing the Dip workings of the Coalbrookdale to be shut down, knowing that thousands of tons of coal were being sacrificed by this action. I think the working of that district was arranged by the Inspector with the management before you came here?—Yes, they had started on that before I came.

54. Before the Coal Committee of the House of Representatives (Parliamentary Paper I.–7, 1899, page 38, question 5), Mr. Lindop was asked, "Suppose a coal-mine is not being worked on the most economical principles, is there anything in the Coal-mines Act to empower the Inspector to compel the mine being worked in the most advantageous way?—Yes. And I had a letter from Mr. Tennent, in reply to my communication, saying that he had inspected the mine, and saying that 'in the face of what we had taken out, we had done the best we could do, both in the interest of ourselves and the State.'" Is that correct?—Yes.

55. When this Big Dip was closed down, in July, 1899, you inspected it, I believe?—Yes.

56. With whom?—Mr. Dunn.

57. And you sent this letter to Mr. Lindop, the manager of the company [letter of 28th July, 1899, produced]?—Yes.

58. You say that the mode of working was arranged between your predecessor and Mr. Lindop?—Yes.

59. Were you perfectly satisfied that the arrangements as so made were the best for the purpose of working this Big Dip section?—There were big quantities of coal to be left in that we took out of it.

60. Then, the arrangements were not actually carried out?—No.

61. In working the Big Dip section did the company carry on operations to the best advantage for the purpose of getting the coal out?—Yes; precautions were taken to get the highest percentage of coal. My predecessor had arranged with Mr. Lindop for a two-chain barrier of coal to protect the creek from breaking down through the surface and making an inroad into the workings.

62. Was that coal afterwards taken out?—Yes.

63. With safety?—Yes. There were little bits of stoups left in.

64. What do you say about the statement that thousands of tons of coal have been sacrificed?—There is no coal there under water. The workings that were abandoned at that time are still standing, and can be taken out at any time they are wanted.

65. Are there thousands of tons there that could have been taken out?—The coal can be taken out at any time. The coal is standing dry.

66. Can you get any coal out of the Big Dip now?—No: the bottom part is exhausted. The coal in dispute is a thin seam with a band of stone in it, and is not worth taking out.

67. Do you know of any authority which you have to compel the company to go on working that Big Dip section?—No, I do not think so.

68. Now, I want to know whether you have any authority to compel the company to work here, there, or in any particular place?—I do not think I could compel them to work in any particular place. The question has never arisen.

69. *The Chairman.*] If you saw that gross waste of coal was taking place in any particular portion of a mine, would you not report that, in order that the mine might be worked in a workmanlike manner?—Yes.

70. *Mr. Harden.*] You act as a kind of steward for the Government?—Yes.

71. With regard to that particular place, would it be practicable to take out that coal?—Not at the time, owing to the position of the machinery at that centre of the work. It would have a tendency to damage the terrace in this particular class of workings.

72. What would be the effect of damaging the terrace?—It would have a tendency to tumble into the plant and machinery, which would be endangered.

73. Will it be possible to work it hereafter?—Yes.

74. If found necessary?—It can be worked at any time.

75. *The Chairman.*] Will it be ever worth working?—I do not think so. It would depend upon the price of coal.

76. You have heard what Mr. Patz said, that he never complained to you, and the union never complained to you, about the ventilation and one thing and another, and that one reason was that you were hard to get at, because you stopped at the company's quarters. You have told us you have been coming up here every two or three months since 1897: has it been your practice to stay at the company's quarters?—No.

77. Where have you usually stayed?—I generally make Ormond's Hotel my headquarters.

78. How long have you been staying at Ormond's?—All along. I have stayed at Patz's place since the machines have been going on constantly.

79. How long is that?—Twelve months.

80. How often have you stayed at the company's quarters?—I have been there twice, once with George Wilson. I was not then on official business, and was accompanying him. He is the Inspecting Engineer for the Government.

81. And on the second occasion?—Mrs. Tennent came up with me, and I asked that she might stay there. Those are the two occasions.

82. Were you in the habit of inspecting the mine when the men were working?—I never inspect the mine except when they are working.

83. In day- and night-time?—Yes. I visit the mine at all hours of the night to get them at their work. I see the day miners on the day shift.

84. Did you frequently see Mr. Foster during your day visits?—Yes. I always called there the first thing, at the weighing-place, to see Mr. Foster.

85. Have you frequently seen Mr. Patz?—I met him when passing, and at home when I was there.

86. Then, may I say it is an untrue suggestion that you were difficult to get at to complain or speak to because you were staying at the company's quarters?—I was not staying at the company's quarters.

87. And you were not difficult to find?—There was no difficulty when I was up to visit the mines.

88. Supposing any young fellows working at the machines found the ventilation bad, is there anything to prevent them reporting it to you?—Not to my knowledge.

89. Did you ever have occasion to find fault with the way the chocks and sprags were put in?—No. I have occasionally talked to some of them about the sprags at odd times, telling them how to do it.

90. Has that happened frequently?—It might be once or twice.

91. *The Chairman.*] You did something of the sort when we were at the Mokihinui Mine?—Yes. I may tell you that I have encouraged the putting of these chock-sprags under the coal, because I consider that in most cases the danger lies in the coal falling away.

92. *Mr. Cottrell.*] You say you inspect the mines every two or three months: do you consider that often enough?—It is as much as I can do.

93. Do you think it is often enough to give you an opportunity of knowing everything that goes on in the mine?—I would not say that.

94. Do you think you can do justice to the Denniston miners by visiting them every two or three months?—I cannot say it would be a great advantage to come oftener. I make it a point to come here every two months. It would do no harm to come oftener.

95. Do you not think you would be able to see the exact state of the ventilation from time to time, seeing that we have been told that the conditions change so often in the mine, and that the bords move along?—It is to the interest of the management, and my interest, to see that the mine is worked properly.

96. But, in the interest of the miners and the management, would it not be an advantage for you to visit the mines oftener?—It would be an advantage to the management, because to a certain extent it would take the responsibility off them.

97. Would it not give the men an opportunity of making complaints to you about the ventilation?—Yes, I would be oftener amongst them.

98. You said you saw the one lad: did you find he was ill through the effect of bad ventilation?—I spoke to him about it. He said he had got two or three drinks that afternoon before he

went to work, and that he had been smoking cigarettes and felt sick. He was on the afternoon shift. I could not remember his name.

99. Do you inquire from the miners at all as to the state of the ventilation?—Yes; I make myself very familiar with the men and make it my study. The manager generally leaves the place, and gives me an opportunity of speaking to the workmen.

100. Do you question the machine-men as to whether they have had any experience or not?—I generally ask where they have been working.

101. Did you ask Bruhn?—I asked Bruhn after the accident occurred about his experience, and what time he had been on the machines.

102. Do you remember what he said?—Yes; he told me he had been on the machines for about eighteen months, and that Hart and himself had been working as mates all the time.

103. Is that the first time you spoke to Bruhn?—Yes. I came back from Reefton, and went straight to the mine.

104. Do you think it was safe to put a gold-miner in charge of a machine like that to work a face of coal?—I do not know that he would be put in charge of a machine directly.

105. Do you think a man should have any special experience in coal-mining before he takes charge of a machine?—Yes; he would be all the better of a little experience in a mine, in setting timber and that sort of thing.

106. Are you aware that men, who have not been in a mine before, are put on to take charge of these machines?—I am not aware of it, without their being educated in the work. I have communicated with the management on that point.

107. In a 20 ft. seam how many full sprags do you consider would be necessary for a coal-miner to put in?—It would depend entirely upon the quality of the coal.

108. Take a face like that Bruhn was working in. We were told it was a 20 ft. face, 9 ft. high, and that the machines go in 5 ft. How many sprags would be absolutely necessary in a face like that?—I understand that there was 14 ft. of that face holed.

109. How many sprags should be put in—according to the Act there should be one in every 5 ft. —I am referring to sprags, not chocks?—There should be two. But we must acknowledge these chocks as sprags.

110. Do you consider a chock the same thing as a sprag?—Yes; I consider a chock is a most effective sprag, provided there is no loose coal on the face.

111. When the machines go in and take out a certain amount of coal from the bottom, and chocks are put in to support the coal, are they any support to the coal on the upper part of the face?—They are no support to the upper part of the coal in breaking away fresh ground.

112. *The Chairman.*] What is the height of the hole the machine makes?—About 15 in.

113. *Mr. Cottrell.*] Do you think that if 15 in. of chocks are put in there they are sufficient to support the other 7 ft. 9 in. of face?—Yes.

114. Would not sprags be also necessary, besides chocks, to protect the upper part of the coat while the men are working close under the machine, to prevent any coal falling at the top?—That would depend on the judgment of the man at the face. As far as the sprags are concerned it is a matter of interpretation.

115. Is it not necessary that they should put in sprags as well as chocks?—It would be a matter of judgment on the part of the man in charge of the place.

116. *The Chairman.*] Would you consider a man would have good judgment who only used one sprag?—In many places the under sprag is good enough. In other places it would be essential to put sprags up on the face. It depends entirely on the face.

117. *Mr. Cottrell.*] In a face of the nature we are speaking of, would you be satisfied if you found that chocks were in every 5 ft.?—Yes.

118. You consider it would be sufficient to put up chocks?—Not in all cases.

119. Do you consider it perfectly safe for a man to work underneath, in a case like that?—In some cases; not in all.

120. Are not miners supposed to put in sprags before they start to hole?—Yes.

121. Supposing you went to see them starting to work with a machine and there were no sprags up at all, would you not say that before they commenced to work they should put their sprags in?—They could put a chock close into the wall before spragging. They do that in many cases. Independent of the sprag there would be a chock put under it.

122. While the coal was being cut would there be something put up to support it?—I would insist upon the sprag being set before they started to hole at all. It would depend very materially on the judgment of the man in charge of the machine, because the coal would be caught directly at the solid end of the cutting.

123. You would not insist on sprags being put in all along before they cut?—No; I do not think so.

124. You say that on the 7th and 8th August, when this accident to Hart took place, you were up at Cardiff?—Yes.

125. Do you not think you should have received some word of an accident of that nature?—I did not receive any. Sometimes they send me letters and sometimes not.

126. When you received the letter of the 15th, did you not think it necessary to inquire from Denniston the nature of the accident?—I got a direct wire to go to Blackball. I did not think, from the nature of the report, that it was a serious accident.

127. Did you know the boy had been taken to the hospital?—Yes; after I came back.

128. Did you make any inquiries at the hospital?—Yes; I went to the hospital.

129. Did you not think it necessary to make inquiries as to the state of the face at Denniston, where the accident happened?—I came to the colliery when I received these wires.

130. How long afterwards?—About three weeks, I believe.

131. Have you got the balance-sheets showing the number of accidents?—Yes.
132. Can you give us the number for the last few years from the balance-sheets supplied to you?—The balance-sheets are generally sent to Wellington. These are the slips of the accidents for the year 1900 [produced].
133. There are sixty-seven?—Yes.
134. *The Chairman.*] Do you mean to say there were sixty-seven different accidents during 1900?—Yes.
135. Can you tell us the number of accidents for 1899?—I could not tell you.
136. There are a great many bruises amongst the number: what are they caused by?—Lifting the boxes.
137. What do the men get when laid up?—12s. 6d. per week from the Government, and the miners subscribe the same amount, making it £1 5s. per week.
138. You say there are two passages in all parts of the mine?—Yes, I think so.
139. Are not some of them old disused ways?—No; we have two passages right through the hill.
140. Do the men know those passages?—They must know them.
141. Have you ever inquired whether they do or not?—I do not know that I have inquired.
142. Do you know whether it is usual to have a travelling-road out of the mine?—I never knew it in my experience of mining.
143. You remember the one that was at the Big Dip section?—Yes.
144. Is it not usual to have one like that?—That was not a travelling-road; it was an old haulage-road, but was used as a travelling-way. I never knew a road purposely made for a travelling-road, and I have been in the biggest mines in Scotland.
145. With reference to the Big Dip, is it not a fact that there is a lot of coal that has been shut out?—I could not say what is at the back of the Big Dip. The back end of the Big Dip was exhausted before I came here at all.
146. Is there not other coal there besides the coal that has been mentioned by you?—Not to my knowledge.
147. Is all the coal extracted from what is known as Lomas's flatsheet?—I think so, but Mr. Lindop can answer that question better.
148. What is the height of the pillars in there now?—The main pillars are about 4½ ft.
149. And the bottom seam?—The pillars are exhausted in the bottom seam, I think.
150. *Mr. Lindop.*] With regard to this boy Hart who was hurt, you are aware that our bords are driven 18 ft., and not 20 ft.?—Yes.
151. When miners are working in bords, is there any difficulty in keeping them down to 18 ft.?—I think so. That is always the trouble with all classes of mining.
152. Do we have the same trouble with machines?—No.
153. You are supposed to be independent of us and the miners?—Yes.
154. As a practical man, do you consider the short sprags referred to are better than the longer ones?—I consider chock-sprags to be the more efficient sprag, and I have educated the men to use them.
155. Is there not a very great danger with these long sprags if they are not properly set?—Yes.
156. They require considerably more skill?—More skill is required.
157. If the holing in this bord was 14 ft., according to the Act, how many sprags would it require?—About two.
158. I make it two according to the Act?—I am taking it at the very outside limit.
159. As far as the sprags are concerned, do you think there had been an infringement of the Act?—I do not.
160. From your inspections do you consider there are fewer accidents to men when working the machines than there are when men are working pillar coal?—I consider so.
161. Do the statistics show that?—Yes; Hart's accident was the first of the kind.
162. And we have had the machines in use, how long?—You have had machines in use since I have been here—three years—but not universally over the whole system.
163. You are also aware that with practical miners we have accidents in holing?—Yes.
164. With regard to our outlets, at Munsie's, how many have we got?—You have sufficient outlets.
165. Is it not necessary that all the men should come out of the mine at a particular place, so that the deputies can check them?—Yes, it is a most important point.
166. Unless they did we should not know whether they were out or not, and there might be serious trouble and we not know it?—Yes.
167. *Mr. Lomas.*] Have you ever heard in any other part of the world sprags interpreted as you have interpreted them to-night? Is a sprag a chock, or is it not?—You could put in a sprag on the same principle as we put in these chocks. You could put a short sprag into the bottom of the coal.
168. That is not a chock, that is a short sprag. How can you sprag coal before you hole it if you do it with chocks?—You cannot put a chock in until the holing is made. There is generally a long sprag put up before the machine starts.
169. But you said you have encouraged this kind of sprag instead of the ordinary sprag, and also said you would like to see it carried out in the longer faces?—Yes.
170. Then, how do you reconcile your conduct with the Act of Parliament? How do you interpret it into a sprag?—There are generally two long sprags put in before they commence holing at all.
171. Is it a sprag within the meaning of the Act?—I think so.
172. And yet you say you cannot put it in before the coal is holed?—There is, as I have said, a long sprag put in before they start holing.

173. But you are encouraging this instead of the long sprag?—You misunderstand me.

174. *The Chairman.*] It is quite plain that the law says that before commencing work at all there are to be two sprags put in. Now it seems that you cannot put chocks in until you have holed?—I quite understand that.

175. So that you cannot call chocks "sprags." The law never provides for an impossibility, and where there is a reasonable interpretation you must adopt it. The reasonable interpretation in this case is that you must use sprags. When you have holed out a certain height you can put in a short sprag?—You cannot do that until the coal is holed. You want to see them.

176. *Mr. Lomas.*] Have you ever known coal to burst out before it is holed?—Yes.

177. If it would burst out before the face was touched, is it not just as likely to do so after it is holed?—I do not think so. It will burst out of the solid when it is going to burst.

178. Will the coal burst at all after it is holed?—It is not so liable to burst after it is holed and set on the sprags, either by pressure of gas or otherwise; it may, but experience proves these facts. Assuming that you sprag the face according to the Act with long sprags, it is an absolute necessity in every case in the Denniston Mine to put in these short sprags under the holing.

179. You are fairly familiar with the English Coal-mines Act?—Yes.

180. Is there any provision in that to provide a travelling-road for the workers?—I do not know that it is in the Act.

181. You know that it is a common thing in Great Britain for travelling-roads to be provided in all the mines?—It may be. I never saw it in Scotland.

182. *Mr. Proud.*] Do you consider there is much coal lost in working the Denniston mines?—I do not think so. Under the conditions I think the coal is very cleanly taken out.

ALBERT BOTTOM examined.

1. *Mr. Cottrell.*] What are you—a miner?—Yes. I am filling at present in the Denniston Mine.

2. How long have you been employed there?—Eleven or twelve years.

3. During the last year or so how have you found the air in the mine?—I have found it both bad and good.

4. Where did you find it bad?—In the Kiwi section.

5. About how long ago?—About two years ago and since.

6. Has it made you ill at all?—Yes, it made me ill for three months.

7. Have you noticed it bad in any other section of the mine?—I have noticed it bad in every section, off and on.

8. Lately have you noticed it bad?—In some places I have.

9. In what places particularly?—In two or three places in the Kiwi section.

10. *Mr. Harden.*] Have you frequently seen the Inspector when on his rounds?—I have not seen him often at any time.

11. Have you seen him at all?—Yes.

12. Have you pointed out to him the bad air?—When it has been bad there was no Inspector there. It has always been good when he came.

12A. Have you ever told him that?—He would tell me it was good then.

13. Have you ever spoken to him?—He asked me once, I think, and I told him it was very good at that time.

14. Have you complained to the management about the bad air?—Often.

15. Have you found it remedied?—Not often. The air would be bad in a place, and they have let it go on until it cleared.

16. What made it bad—powder?—Bad air.

17. Want of ventilation?—Yes.

18. Was that not unavoidable until you got a passage?—The air should have been let inwards or driven in with a fan.

19. Did you find it difficult to see the Inspector if you had wanted to make a complaint?—I never looked for him.

20. *Mr. Lindop.*] You said you were laid off for three months?—Yes.

21. Did you get a certificate from the doctor?—No.

22. What was the cause of it?—It was the effect of bad air.

23. If it had been bad air you would have got the doctor's certificate?—I do not think so.

24. Why not?—I did not get it. I did not try to get it.

25. It never struck you until two years afterwards that it was through bad air?—I never applied for the certificate.

26. You lost £15 by it?—I might have.

27. Were you ever off with a bad leg?—That was a few years ago. I was off through the bad air last year.

28. *Mr. Cottrell.*] Can you get a medical certificate if you get knocked up through bad air?—I suppose I could if I applied. I never bothered about it.

29. *Mr. Lomas.*] Have you ever known a place in the mine where the air was bad, and where the air was carried into that place with brattice-cloth, a fan, or anything else?—I have known the brattice to be there, but still no air travelling.

30. In reference to the particular places where you said you had to go out, and were laid off for three months, was there any brattice in that place?—No.

31. How far was it from where the air was travelling?—It was travelling for a few yards in the mouth of the tunnel, and after that there was very little.

32. How far was the air from where you were working?—About six pillar-lengths—about 80 yards from where the air was travelling.

33. *Mr. Proud.*] Was the brattice kept close up to the face?—No.

TUESDAY, 5TH FEBRUARY, 1901.

JOHN FOSTER re-examined.

1. *Mr. Cottrell.*] You produce the books of the General Accident Fund?—Yes.
2. The number of accidents for the quarter ending December, 1900, was thirty-two?—Yes.
3. The amount paid was £50 13s. 5d.?—Yes.
4. For the quarter ending 30th September, 1900, there were twenty accidents, and the amount paid was £34 17s. 11d.?—Yes.
5. For the quarter ending 27th June, 1900, there were sixteen accidents, and the amount paid was £29 4s. 4d.?—Yes.
6. For the quarter ending 31st March, 1900, there were twenty-one accidents, and the amount paid was £29 16s. 10d.?—Yes.
7. For the quarter ending 31st December, 1899, Granity was included, and the the number of accidents for both Granity and Denniston was eighteen, and £35 11s. was paid?—Yes.
8. For the quarter ending 30th September, 1899, there were thirty-five accidents, and £60 4s. 2d. was paid. Ten of those accidents were for Granity?—Yes.
9. For the quarter ending June, 1899, there were twenty-six accidents, and £44 17s. 6d. was paid for the two mines?—Yes.
10. For the quarter ending March, 1899, there were eighteen accidents, and £23 10s. 9d. was paid. Two of those accidents were for Granity?—Yes.

NICHOLAS MILLIGAN examined.

1. *Mr. Harden.*] Prior to Mr. Sowerby being at Ironbridge, you were there?—Yes.
2. That would be when Bruhn was taken on?—Yes.
3. Do you consider Bruhn capable of having charge of a machine?—Yes.
4 Would you call him an experienced person?—Yes.
5. *Mr. Cottrell.*] Are you quite satisfied with the way he performed his work?—Yes.
6. How long was he in charge of a machine?—Between thirteen and fourteen months, while I was manager.
7. Was he put on a machine on first coming into the mine?—He was put on within two or three days. He showed such intelligence that he was put on right away.
8. Did he come from the mines in Reefton?—Yes.
9. He was about three days with another man when he was put in charge of a machine?—Yes.
10. Do you think a man like that is capable of taking charge of a coal-cutting machine?—Yes.
11. Was not Bruhn a delicate small man?—Yes; he was not very strong.
12. Was he not continually ill afterwards?—No; he asked for a holiday to bring his wife down.
13. Has he not complained a good deal about being ill in the mine?—Not to my knowledge.
14. *Mr. Lindop.*] Did he complain after this accident?—He wanted to get off the machines because he thought the men wanted to prosecute him.
15. Who, in your experience, is the best man to work the machine?—No doubt the men who have come from the quartz-mines have given us the greatest satisfaction.
16. You have no hesitation in saying that, from your experience?—No hesitation whatever.

HENRY SOWERBY examined.

1. *Mr. Harden.*] You are mine-manager at the Ironbridge section?—I am.
2. And you were manager when Hart met with his accident?—Yes.
3. And you knew Bruhn and Hart?—Yes.
4. Are you aware of how Bruhn did his work?—Yes.
5. How long had he been with the machine before the accident?—From June, 1899, to August, 1900. He always did his work well, so far as I knew, and kept up his sprags in good proper order. There was never a complaint made against him in any shape or form.
6. Had you any reason to consider him an inexperienced man?—None at all.
7. When did he go to the Denniston Mine?—On the 18th June, 1899.
8. Had he been at the machines all the time?—I think so; but you must inquire of my predecessor, Mr. Milligan.
9. Can you tell us about the ventilation of the mine?—It has been good since I have been there. I have had no complaints, except about one section of the Kiwi that we were holing. The smoke did not get away, and it was the only time we ever had what is called bad air.
10. *Mr. Cottrell.*] Did not the men have to go out fairly often?—Not to my knowledge.
11. Will you tell us all the cases that have come to your knowledge?—I do not know of one.
12. Is it a fact that half a dozen of the fillers came out?—Not to my knowledge. Perhaps if you state a case I might know about it.
13. Have you not heard of any case?—Absolutely none, to my knowledge. With regard to the spragging, they never made it perfectly plain that there are six or seven sprags put up. When the machine is put down, the first thing the man does is to put up his long sprag. Then he holes, but he never holes an inch until the first long sprag is put up. If the face is good, then he puts the short chocks in. He then shifts his bord, and if his face requires it, there are other long sprags put up besides the short ones. You will go into some places where you will find five, six, seven, or eight sprags in the one place, and the number depends upon the judgment of the man in charge.

14. *Mr. Lomas.*] In reference to this particular instance, there was not a long sprag set beyond the one mentioned?—There was one 8 ft. from the side. I took particular measurements of it, and can supply them in connection with this place. I found two other short sprags or chocks there. The deputy says there was a third one, but I did not see it. I am only speaking from my own knowledge.

15. *Mr. Lindop.*] You are aware that Foster wanted to prosecute Bruhn?—Yes.

16. What decision did we come to about it?—That we could not, as the man had not infringed the rule.

17. *Mr. Harden.*] What was the width of the place?—18 feet.

18. And the height?—8 ft. 6 in., and the cut was 14 ft. The coal broke between the 4 ft. and 5 ft. 6 in. It broke off 18 in. It was 4 ft. 9in. above the floor.

19. What was the face like?—The face was hanging back over. According to the grain of the coal, it must have been beyond the perpendicular.

20. *Mr. Lindop.*] You measured this?—Yes, with a two-foot rule, and it was 18 ft. From what I saw when the check inspectors came, I thought there was likely to be trouble, and wanted to be prepared for it.

21. Why did you not order the place to be closed up?—I did not consider, from what I had heard of it, that there was any serious accident of any sort. The boy did not lose consciousness in any shape or form. That night I left word with the accident inspectors, and said if they were prepared to go down an hour earlier I would go down with them.

22. Why did you not order the place to be closed up until it was inspected by the Inspector?—That is only usual in case of serious accident. I did not consider this a serious accident, and especially as Mr. Tennent was not to be got at.

23. *Mr. Cottrell.*] How far was the sprag away from the side?—8 ft.

24. Do you think that is sufficient?—Yes. The law says 10 ft.

25. Why was the man prosecuted the other day?—Because he had no sprag at all.

26. *Mr. Lomas.*] The Act distinctly says a sprag must be put in before the man commences holing?—Yes, one sprag.

27. Do you not have to take out the bottom before you put these chocks in?—Certainly; but I consider we complied with the Act.

JOHN HARRIS examined.

1. *Mr. Harden.*] You are one of the underground managers for the Westport Coal Company?—Yes.

2. You know John Brown?—Yes.

3. He was working in Bradley's section in 1899, and you remember finding him unconscious?—Yes.

4. Where was it you found him?—On the left-hand side in the Cascade section, in the return airway.

5. What condition was he in?—I thought he was in a fit. I could not bring him to his senses, and got his mates to bring him out.

6. Did you take or send him home?—We sent him home by Robert Sneddon.

7. What was the state of the ventilation at the time?—Very fair.

8. Did you examine the place where the man had been working?—I did.

9. What was the condition of the air there?—Very fair.

10. Was anybody else working there?—Where Sneddon was working I did not know who was filling with him; but I know Appleyard was filling with Brown.

11. Did they go on with their work?—Yes.

12. Was the state of the air such as to cause the man to faint?—No. Appleyard told me that Brown had been complaining before this of being unwell.

13. Through foul air?—He did not say it was through foul air.

14. When did you first hear that Brown was supposed to have been overcome by the foul air?—I never heard that. I considered the man was in a fit.

15. When you went in to examine the place did any of the others complain to you of the foulness of the air?—No, they did not; not his mate even.

16. Have you ever found any other miner in a fit in the mine?—I have.

17. When was that?—Some seven or eight years since, in Munsie's. It was Gillespie.

18. What was the state of the air there?—Very good. He never worked here afterwards.

19. Do you know if any of the deputies have had a fit?—Yes, John Hartly. He fell off a stool in the company's office in a fit.

20. With regard to the machines, which do you consider the safer method of working, the machines or the pick?—I consider the machines equally as safe as the miners with the pick.

21. With regard to the condition of the coal, Mr. Foster states that mining the coal with the machines renders it from 17 to 20 per cent. less in quality, condition, and value than with the pick?—I think we are getting coal on a average as large as with the pick, and far beyond what we did with the grunching—that is, blowing the coal out of the solid without holing.

22. Have you seen the Inspector often coming along to inspect the mine?—I have seen him regularly when he came his rounds.

23. In the section where you are managing does he keep you alongside of him?—Yes, either I or Mr. Dunn.

24. Do the miners have an opportunity of speaking to him out of your presence?—Certainly. If any man wants to speak to him I just leave him.

25. Does he go in on the night shifts?—Yes, unknown to us.

26. Then the men have ample opportunity of speaking to him?—Certainly.

27. *Mr. Lindop.*] On any complaints being made about the ventilation have you given them prompt attention?—If I had a complaint about the ventilation I should stop the place and withdraw the men.

28. Then, there is no occasion for a man to work in a place that is not well ventilated?—No, there is not.

29. As far as ventilation is concerned in the Coalbrookdale section, as a practical man, tell us what it has been like for the last two or three years?—Of all the mines I have worked in I have never worked in one better ventilated than Coalbrookdale. I have been working underground for thirty-five years.

30. With reference to the man Brown, in your own mind are you satisfied that his illness was not due to bad air?—Yes.

31. *Mr. Cottrell.*] You are a deputy in the mine?—I am.

32. And under special instructions of the manager?—Yes.

33. Can you say positively this man Brown was not overcome by bad air?—If he was there was plenty of air in the place where he was filling.

34. Was he lying as if he was overcome?—He was lying in a fit, I am certain—I have seen so many. He was all of a tremble.

35. How would it affect you if you were overcome by bad air?—I should just drop off quietly. He was like a child in convulsions.

36. If men have to go out on the rope-road on account of bad air, do they lose their time?—Yes.

37. So a man would not leave his place unless he was forced, because he would have to lose time?—No, I do not suppose he would; but he might make an excuse to get out early.

38. What air was there in this place where young Brown was working—was it compressed air?—No. There was no compressed air used in the mine then.

39. How was the ventilation taken into the place where he had been working?—In the ordinary way, by the front entrance. If I remember rightly, he would be filling 12 yards from the back heading.

40. *Mr. Harden.*] You said that if the men went out for air they lost their time?—If they went home.

41. The men we are talking about are day-wages men: do they lose time if they go out for fresh air?—I meant that if a place was bad, and the men went home, they would not be paid for that.

42. If they go down to a place for a little fresh air, do they lose any portion of their day's pay?—No, not unless they go home.

43. Being on day-wages are they compelled to go into bad places?—There is no compulsion.

44. *Mr. Lomas.*] Have you known many cases where men have had to go out through bad air in the mine?—No.

45. Do you know of any?—Yes, I have known them to go out of Munsie's through bad air very recently in a prospecting-drive we have going there.

46. Is that the first you have known to happen in Denniston?—No; I have known men to go out through bad air. There are a few cases.

47. In reference to the particular cases in Munsie's, could that have been avoided?—That is in the prospecting-drive. We changed the ventilation.

48. At that particular time could it have been avoided?—No.

49. There were no means of getting air into the place?—There were means, and we changed the ventilation, and got the road from the Cascade.

50. Which was the best air, after you changed it or before?—After we changed it.

51. Had you any brattice or any return?—We had brattice and had a return round the face with brattice-cloth, as it is standing at the present time. Formerly, before this place had advanced, the air was quite sufficient; but as it advanced in the prospecting-drive we had to make an alteration.

52. The ventilation was inadequate for the number of places?—Yes.

53. *Mr. Proud.*] In which way was the place ventilated where the boy fainted?—It was ventilated in the ordinary course; the air travels through the front heading by the rope-road, passes round the back heading, and ascends a shaft leading on to the fan, and the fan drove it from that place.

54. *Mr. Lomas.*] Did that air pass from any other working-face before?—No; we got a split at the bottom of the rope-road. The air went right into the heading-face of that level and reversed back to the back heading.

55. You have a heading, and is the furthest bord in that heading where the air goes first after it leaves the heading?—Yes.

56. Does it go out of that bord into the next, and so on through all these bords, before it goes to the upcast shaft?—Yes.

57. How many bords did it go through?—There were five places on the left-hand side and none on the right.

58. Where did the boy work—in the first or the fifth bord?—I think he was filling in the third place.

59. The last place would be worse than the third place?—Yes.

60. There were two places worse than the place in which he was working, and the men were working in them?—Yes.

61. *The Chairman.*] You told us that in the event of any complaint being made you would withdraw the men?—Yes.

62. Take the case of men working on piecework, they work according to their cavil, do they not?—Yes.

63. If they complain of the air are they withdrawn from the place?—Yes.
64. For how long?—During such time as it is fairly ventilated again.
65. As a rule, how long would that take?—It depends upon whether the company have the material or time to attend to it.
66. So that a week or so might elapse before the ventilation was put right?—No.
67. How long would the men lose?—I think they lost a shift in Munsie's.
68. There has been no case in the mine of the ventilation being so bad that it could not be repaired in a shift?—In the instance we are speaking of we should have had to alter all the stoppings, and it would have taken more than a shift to do it.
69. What would be the cost to the men if they are removed from a place through bad air?—They would lose their day's work. In the case of Munsie's, I believe Mr. Dunn found other places for the men.
70. Have there been any cases where the men have had to remain idle because of their complaints of bad air?—Yes; I think in Munsie's jig six of them went home.
71. Have they lost a few days' work in consequence of having to go out?—No.
72. Supposing some one accused you of doing this: of compelling men to work in bad-air places by practically telling them that if they did not choose to work there they could not work anywhere?—In a case of that kind, if we could find them another place we would.
73. I want to know what has occurred?—If it was not possible to find another place we could not do it, and the man would have to lose his time.
74. Do you think that any men have lost time in consequence of having objected to work in such places?—Yes; I think some of the men in Munsie's would lose a shift or part of a shift.
75. You do not think it would extend beyond a shift?—No.
76. *Mr. Lomas.*] Do you know of any particular instance where a miner has lost more than one shift through bad air?—No.
77. *Mr. Cottrell.*] Do you know of any case where men working in pillars have lost time through bad air?—Yes; I am not sure whether it was last month or not.
78. Have you known men to be brought out of the Cascade through bad air?—Yes.
79. How many in the month before that did you know of men working at the pillars?—We are going over a big fault there at the present time.
80. And the men have had to come out?—Yes.
81. And have had to lose their time?—Yes.
82. If a man goes to the airway for an hour does he lose his time?—I have never known a case where he went away for an hour.
83. *Mr. Lindop.*] You replied to Mr. Lomas that the air in Munsie's was inadequate?—Yes.
84. It was not enough?—No, not until we altered the ventilation.
85. Was it bad?—Yes, in that prospecting-drive, until we changed the ventilation.
86. That was for how long?—I think it was the second day.

JOHN MOYE examined.

1. *Mr. Cottrell.*] You are a miner working at the Denniston mines, and also an inspector appointed by the Denniston Miners' Union to inspect places in case of accident?—Yes.
2. Do you remember the accident that happened to the boy Hart?—Yes.
3. Were you present here yesterday when Dellaway gave his evidence?—Yes.
4. Was what he said true and correct in every particular?—Yes, pretty well correct with regard to the face.
5. With regard to what happened was he generally correct?—Yes.
6. You were on the same shift as Dellaway?—Yes, the afternoon shift.
7. Could you have been called at once to the accident?—I met the overman coming in along the lay-by—that is, Mr. Currie.
8. Did he say anything to you about the accident?—No; I did not know there was an accident.
9. If he had done so you could have gone to the face then?—I probably would have waited until my mate came.
10. Could he have been got the same as you?—He was working in another part of the mine—Koranui—and I could have got him in half an hour. In these cases the two of us always wait for the manager in charge to take us into the place. We would not go into a place of our own accord.
11. When you went in, what was the condition of the face?—It was about 20 ft. wide and 9 ft. high, with a smooth parting on the top; there was a coal top.
12. How much of it was holed?—The machine was taking down the last cut.
13. That would mean about how many feet that had been holed?—The cutting would be 6 ft. or 7 ft. in that place. You would shift your machine three times in that particular place. It would take about 7 ft. out in each of the two cuts. There would be about 14 ft. independently of the last cut.
14. What depth would the holing be?—About 5 ft. or 5 ft. 6 in.
15. What sprags were set?—There was a sprag about 6 ft. away on the left-hand side of where the machine started. There was a sprag about 6 ft. away and two chocks under the lip of the coal—under the holing. One of those chocks was directly under the big sprag, and the other chock would be about the centre of the face.
16. What was the condition of the face: was it straight up and down?—Previous to this lump of coal coming down it would be straight up and down.
17. Was there anything in the face to make you think it would be wise to have a big sprag there beforehand?—Yes. Another long sprag about the centre of the face would have made the face fairly secure.

18. In a face like that what is your understanding of the number of sprags to be set?—It is usual to set a sprag every 5 ft.

19. And that was not done in this case?—When we went into the place we did not know whether there was a sprag set there or not. We thought there might have been a sprag carried away with these lumps of coal. We searched for it, but could not find it. The manager called a couple of fillers to shift the coal. They did so, and we went away to our usual work. The manager said he would let us know and we could go down to have a look.

20. Did you find the sprag?—No; there was no long sprag that we expected to find.

21. Did the manager admit that there was no sprag there?—He told me when he came up to my working-face that he had shifted the coal and could not find any sprag. He said we might go down and look for ourselves.

22. Did you?—Yes, and found no sprag.

23. Was there any slack coal taken out by the holing?—Yes, by the previous holing that had been done.

24. Do you consider that slack coal had anything to do with the saving of the boy's life?—Yes.

25. Why?—When the coal came away from the face the weight of the coal pressed him down into the slack, which would give way.

26. Do you think that prevented him being crushed?—Yes; more seriously hurt.

27. Was the amount of coal that came down sufficient to kill him?—If he had been on a hard place I think it would have killed a man, considering the size of the coal that fell.

28. When you went in did you see where the boy had been embedded in the slack?—Yes; we could see where the boy had been taken out from under these lumps of coal.

29. *Mr. Harden.*] I suppose there was plenty of timber for the miners to use for sprags if they had wanted to?—Yes.

30. The company supply plenty of timber to all of you?—Yes, that is my experience.

31. Do you think the Inspector on his visits would find a shortage of timber for the men?—Not that I am aware of.

32. I suppose at the time, you and Dellaway were satisfied that every opportunity was given you to examine the place?—Yes.

33. Was there any attempt made to conceal anything or to mislead you?—Not in the least.

34. *Mr. Lindop.*] You said you met Mr. Currie?—Yes; along the lay-by on the top of the dip.

35. Do you know whether the accident had happened at that time?—I did not hear at that particular time that the accident had happened. I could not say whether Mr. Currie knew about it at the time I met him.

36. With regard to the spragging, do you think a sprag was necessary in the centre?—I think a practical miner would have seen it was required there to sustain that last cut.

37. *The Chairman.*] Supposing you were working by hand, what is the width of the holing you can make with a pick?—You can take it in two or three shots. In working with a machine they hole right across the face. It would mean shifting a machine three times in a face of that kind.

38. Supposing a miner was working along his holing in a face 18 ft. wide, how many sprags would he set against the face?—He might be working in a place 18 ft. wide, and only have one sprag set to the face he was holing.

39. Then when a machine is holing, the whole undercut is made across the face before any shooting begins?—Yes.

40. Have you ever worked with a machine?—Yes.

41. Do you put in a sprag before you begin to hole?—Yes, one for the first 7 ft. It would depend upon the nature of the coal whether you put another sprag in the centre or not. The sprag would be 5 ft. or 6 ft. from the wall. You withdraw the machine and put it on the right side of the sprag.

42. Do you consider it a safe method of working, to cut 14 ft. with one sprag and chocks?—Yes; that is, with the usual two cuts. The machine was in the third cut when the boy was injured. Part of the coal came off where the machine was holing, but the great part of it was where it was holed.

43. *Mr. Lindop.*] This system of spragging has been in use ever since we had the machines?—Yes, so far as I have seen. There might be exceptional places.

44. How long have the machines been in use?—About three years.

45. And this is the first serious accident we have had?—Yes, so far as I have seen. There might be others of a trifling nature.

46. Do you know Duncan?—Yes.

47. Is he a practical miner?—Yes.

48. He met with an accident?—Yes.

49. Did he have a sprag up?—I was not appointed to examine the places at that time. I heard that he met with an accident through holing.

50. Then accidents are common to both methods of working?—Yes.

51. *Mr. Lomas.*] Did the coal slip over the top of the small sprag?—No. I consider the face would be about perpendicular before this lump of coal came down.

52. Would this short sprag be of any use to the coal that came off above the sprag that injured the boy?—In some cases it might, but in this particular case it was not.

53. Is it a common practice in the mine for miners to hole out 7 ft. before putting in a sprag?—I would not like to do it myself.

54. And yet that is done with the machines?—Yes.

55. How many tons of coal came down?—About a ton and a half.

56. What size was the biggest lump?—One was about a ton weight and another about half a ton.

57. Would you consider it sufficient to kill a man?—I would not like it to fall upon me.

58. *Mr. Lindop.*] The sprags are set as required, and you have seen the places full of sprags, have you not?—Yes, and I have seen places where the Act does not provide enough to make it safe.

ALFRED BENJAMIN LINDOP, Mining-manager and Engineer, examined.

1. *Mr. Harden.*] You are mining-manager of the Denniston Colliery?—Yes.

2. You have heard the evidence on the first allegation against Mr. Tennent, that he is not a fit and proper person to be Inspector of Mines, and that he shows distinct apathy to the health of the men in not seeing that a proper system of ventilation is carried out, thereby causing persons to become unconscious at their work and causing them to be taken out to be resuscitated. What have you to say as to that?—With regard to the ventilation of our mines, I consider that, taking them as a whole, they are practically the best ventilated mines in the world.

3. Have you had much experience in mines elsewhere?—Yes; I have had an English experience of mines in Staffordshire and a colonial experience at Springfield, and I opened up the Blackball Mine before coming here.

4. And I suppose, incidentally, you are pretty well acquainted with the Brunner works?—Yes, through visiting them and making an inspection.

5. Have you had complaints made to you about the ventilation here?—No; I have never had a definite complaint.

6. Have you known of miners having to come out of their places on account of the bad air, and sometimes in a fainting condition?—No. I heard more last night about this subject than I had heard before all the time I have been here.

7. Could anything have been done, or has anything been omitted, to improve the ventilation?—No; everything possible has been done. We have been favoured by nature as well in the ventilation of our mines. That is, most of our workings run along the edge of escarpments, and we hole out to daylight. For instance, in the Cascade section I suppose we hole out to daylight every 22 yards—every pillar, in fact. The same thing occurs in the Kiwi section and the Ironbridge section.

8. You have heard what has been said about Munsie's section, that there was insufficient air: how long was that allowed to last before being remedied?—I cannot tell from my own knowledge, but you have heard it was about one day. It was quite local, and was remedied at once.

9. Does Mr. Tennent always advise you when he is coming up to inspect the mine?—No; the first thing I know of Mr. Tennent coming here is when his bag is coming up the incline. It would not trouble me if he came every day—in fact, we would be better pleased.

10. Is it a fact that just prior to Mr. Tennent's visits you were in the habit of putting your ventilation in order?—No; the thing is an absurdity.

11. Is anything done to put the mine in a different condition on account of Mr. Tennent's visits?—No; we do not trouble about his visits. My first order to my mine-manager is safety at all costs, then comes economy. If I started in the morning at five o'clock to inspect our workings it would be five o'clock in the evening before I got back; so I have to trust to my managers a good deal. We put the men on day-wages in most parts of our mine. We have only about forty miners working on tonnage rates, and it is to our interests to give them good air.

12. *The Chairman.*] How many men have you?—About eighty machine-men and fillers.

13. I understood you had about five hundred?—There are about four hundred of all classes.

14. And out of four hundred there are only forty on piecework?—Yes, forty miners getting coal at tonnage rates.

15. *Mr. Harden.*] Besides the coal-getters you have a great many men working in connection with the coal?—Yes.

16. Are they on wages?—Every one is on wages with the exception of forty men getting coal on tonnage rates, and the truckers who are on contract wages.

17. What would be the effect on your returns if men had constantly to leave work, and so reduce the output?—The output is a very serious item with us. We have so much expense in connection with wages. We have all this incline to work, and success depends upon the output.

18. It is to your interest to have all your men constantly working to get the coal?—Yes; it means from 14 to 16 tons if a man is off a shift. It is to our interest to keep the place well ventilated.

19. You did not see the man Brown?—No; but he was in a fit, according to my information.

20. Was James Cadman on wages?—Yes.

21. Was there any necessity for him to go into this place that was not ventilated?—Not at all.

22. Would he have lost any wages if he had not gone?—No. He could have gone into another place. The boy admitted last night that he would have more sense in future.

23. Mr. Tennent is charged with allowing the company to employ inexperienced men. It is said that that charge relates to the men you employ at the machines and not to the others—particularly to a man named Bruhn?—In a measure, all I can say is this: that we always put in what we consider experienced men, and as manager I am quite prepared to take any blame there may be attached to that.

24. How many men have you at the machines?—About thirty, chiefly young miners.

25. Why do you choose young men?—They are better fitted for it. They are not so narrow-minded as the older colliers.

26. How long have the machines been working?—Three years.

27. Did you ever try to get old miners to work the machines?—Every man employed at Coalbrookdale refused to work on the machines when they were first introduced.

28. What had you to do in order to work your machines?—We had to import fresh labour.

29. Is it a fact that the old miners who have been working with the pick have been very much opposed from the first to the machines?—I have men working at Munsie's now who would sooner leave the Hill than work on the machines.

30. What was Bruhn before he came here?—He was working at the quartz-mines.

31. Do you consider a man who has been working in a quartz-mine a safe man to put in charge of a coal-cutting machine?—If he is an intelligent man he is the best you can get.

32. Is Bruhn an intelligent man?—Yes. He is about twenty-seven or thirty years of age.

33. Where had he been working?—At Reefton.

34. You say there is as much difference between an ordinary coal-miner coming to work a machine as there is with a quartz-miner?—Yes, just as much. It is a new departure for the coal-miner.

35. How long was Bruhn working for you before the accident?—Eighteen months.

36. Without accident or mishap?—Yes. If he had had anything wrong it would be only a very small thing, or I should have heard of it.

37. Are there any others working in the mine who are inexperienced?—I take it upon myself to say that I am a better judge than any union is in connection with the machines, and I am willing to take all the responsibility. Neither Mr. Patz nor Mr. Foster has worked on the machines, and they have not had the experience to warrant them in speaking about them.

38. Have you had any complaints from the lads working on the machines as to the men's incapacity?—No, I have never heard of any.

39. Is this the first time you have heard the allegation that you employed inexperienced men to work on the machines?—It is the first time it has ever come under my notice officially.

40. Have you ever heard any complaints that it is not safe, and that boys' lives are endangered?—Never. The machine does away with the dangers which form part of the miner's occupation, in my opinion. It does away with the holing by the men. A man holing 4 ft. or 5 ft. has to cut underneath the coal. I have had more accidents with men holing than ever I had with these machines. I had one poor fellow killed at Coalbrookdale, six or seven years ago. He was working with a sprag, and the sprag came out, and the coal fell and killed him. Another man named Duncan had his collar-bone broken through a piece of coal coming out. The machines are safer. A boy uses a long shovel, and can sit away from the face and shovel all the slack back. He has any amount of time to get out of the way, if a warning of any kind is given that the coal is coming down. He sits 3 ft. or 4 ft. away from the face and the machine-man is another 3 ft. or 4 ft. behind him working the machine. The fact that we have had the machines in use three years, and this is the only accident that can be brought against them, speaks more strongly in their favour than anything I can say.

41. Is this the only accident that has happened with them?—The only serious accident. We have had small accidents to fingers, and that sort of thing.

42. Has Mr. Tennent anything to do with the men you employ?—Not at all. We should resent anything on Mr. Tennent's part as to whom we should employ. I can pick a man out as a miner without going to see him work.

43. You have always a deputy or underviewer in charge of any section, whether it is worked by machinery or by the ordinary miner?—Yes; there are men who are picked out on account of their practical experience. I may say that with regard to these faces the mine-manager makes a daily inspection; then there is the underviewer, who goes round every day, and the deputies, who are always with the men, to look after the timber, and so on.

44. The check-inspectors are appointed by the union under the Act?—Yes, under section 11. [See exhibit No. 2.]

45. The allegations against Mr. Tennent state: Mr. Tennent distinctly shows favour to the proprietors of the Denniston mines by not compelling them to provide two outlets to the mine, contrary to section 40 of the Coal Mines Act; also that Mr. Tennent puts a wrong construction on the section. I would ask you whether there is any part or section of the Denniston mines where there are not two separate and distinct shafts or outlets to the surface from such mines not communicating with each other: is there any such section in the mines?—There is no such section in the mine. Munsie's section has three separate outlets. There is the main road, the shaft or back heading—it is really a back heading—and then there is a road into the Cascade section from which you can get out to daylight.

46. You have heard what has been said, that these outlets are intricate: could any miner find his way out?—As a matter of fact, our miners do not often leave us, but advance with the works. The men are well acquainted with the mine at Munzie's, and they could not possibly go wrong. It is merely a matter of following your nose to get out.

47. Now with regard to Cascade Mine?—There is a main rope-road there, a top road, fan-airway, and water-drive, and half a dozen openings to daylight along the cliff side. All those roads go out to the cliffs. You have only to go round your leading faces to get out.

48. What other sections are there?—In the Ironbridge section we have the main rope-road, two shaft-sections to daylight, a water-drive, the yellow cliffs, and the fan-drift. The rope-road should be counted as two, as it goes right through a hill and comes out at the other side; and there are half a dozen safe openings to the outcrop. Our object in only allowing men to travel on one road in and out of the mine is that they must pass a station, so that each man can be checked coming and going from his work. If men were allowed to come out any road, when and where they liked, there could be no check kept. It is really to the interest and safety of the miner that this should be done.

49. *The Chairman.*] You were examined before the parliamentary Committee appointed by the House of Representatives on the 25th August, 1899?—Yes.

50. Do you adhere to the evidence given by you on that occasion?—I do.

51. *Mr. Harden.*] Do you consider that you had worked that Big Dip section in a workmanlike manner?—We were in this position: The coal is in the form of a basin, and is covered by innumerable cracks. We had to use very great care with it. I had a man named Bannister stopping up the cracks, and had boxes to carry the water away, and I think we got 90 per cent. of the coal out. The difficulty was that the two seams were very close together, from 30 ft. in some cases down to 4 ft. We kept the top seam a few pillar-lengths in advance of the bottom seam, and I consider it a feat in mining engineering that we got out that amount of coal. I do not value the opinion of the miners, because they do not understand what we had to contend with.

52. You say that you did not waste thousands of tons of coal as stated in the allegation of the union?—I say we got every ounce of coal it was possible to get out.

53. What do you say with regard to the effect of the machines on the quality of the coal?—It all depends upon the character of the coal. If it is good hard coal it is good; if it is soft, it is bad.

54. Is it deteriorated 20 per cent. in consequence of being mined by machinery?—No; the coal is just as good as that got by hand. Machines have this advantage over the miner: A miner will never hole 5 ft. or 5 ft. 6 in. These machines hole 5 ft. 6 in., and the consequence is that we get a bigger proportion of round coal than the miners do. The machine has only to get in 15 in., and it makes less slack. We average from 32 to 40 per cent. of slack, but Mr. Joachim will give you the proper percentage of slack. We always pick the best of our coal for screening purposes, and you cannot get away from the results.

55. Do you pick out the best places for the machines, where the best coal is?—No.

56. *Mr. Cottrell.*] You consider your mine the best-ventilated mine this side of the line?—I do. We have natural facilities which no other mines possess.

57. At times, in some of the bords, the air cannot be so good as at other times: do not the men have then to work in bad air?—It is possible, but not probable. A man may go into a place before he should, and before the smoke has been really cleared out. It is his own fault then.

58. It has been incidentally mentioned that complaints have been made, and bratticing put up as a convenience to the miners?—Bratticing is put up when wanted.

59. There must have been a certain state of affairs to make that necessary?—We are practical business-men, and want the best work out of our miners.

60. Bratticing is done when requested?—Yes, whenever necessary.

61. Do you say that all suggestions in that way are carried out?—Yes.

62. You have been referring to the boy Cadman: you said the boy had learned more sense now, and he would not go in again under the same circumstances?—That is in the boy's evidence. If you fire powder off there must be a certain time before the smoke can get out.

63. Could the boy refuse to go in if ordered in by the deputy or his mate?—Jack is as good as his master here, and he would only go when he liked. The men should have had more sense than to take him in, and the boy admits that he has now more sense.

64. With regard to the men working the machines, do you assert that a man coming from a quartz-mine is as capable as an ordinary coal-miner?—I assert publicly that a man out of a quartz-mine is a better man for us for working the machines than what Mr. Foster calls a coal-miner. A quartz-miner is a better man for propping his place, and he comes to the mines with new ideas as to coal-cutting. It takes us some three months to drill a man in the working of the machines, and we want men who will take interest in them, both as regards safety and working. There is no comparison between a man coming out of a quartz-mine and an ordinary coal-miner in this respect. That is my experience after three years with the machines, and it will be indorsed by every responsible man I have got in the company.

65. Does it require special skill to work a machine?—The coal-miner has got a dislike to the machine, and it only requires ordinary intelligence to work one.

66. He need not be a quartz-miner to work a machine?—I would not be afraid to put you on as a boy. Mr. Patz went on as a miner after three months' experience, and I should think you are a man of as much intelligence as Mr. Patz.

67. How long do you think a man would want in experience before being put in charge of a machine?—I would put a man on in a day if I saw he was an intelligent man. It is a new departure.

68. A man of ordinary intelligence, in your opinion, is capable of taking charge of a machine very shortly after going into the mine?—Yes, if he has had any training at all in alluvial or any other class of mining where timber is used. I would put you on as a machine-boy in starting you.

69. How long do you think I would be a machine-boy before being qualified to have charge of a machine?—It would depend upon your aptitude.

70. How long was Bruhn there before he was put in charge of a machine?—In regard to Bruhn, I am willing to take any responsibility. He has proved himself to be an experienced man. I do not allow any one to question my right in putting on a man.

71. You said a little while ago that the machines were less dangerous to the man and boy working with them than ordinary mining in holing a place: is it not a fact that the machine goes further in in holing out?—Yes, of course.

72. Does not the boy have to go nearer to the face?—No. He stands in one particular place with a long shovel.

73. Is the boy not flush up against the face?—No.

74. How long is the handle of the shovel?—I am open to correction, but I think it is about 6 ft. long.

75. And the machines hole in how far?—5 ft. He has to push one hand in and pull the shovel back. He is about 2 ft. away from the face. The miner has to go right under, and the boy has not.

76. *Mr. Lomas.*] In regard to the ventilation, you told us that in most parts of the mine you were frequently cutting out headings on to the opening?—Yes.

77. How many of those places do you make intakes of; and do you utilise all the air that goes in?—Take the Lady Glasgow section: We put in proper stoppings, and do not allow the air to blow in and out as it likes.

78. With regard to the machines, do you tell us that the quartz-miner going into a working-face would be as capable as a coal-miner in knowing the danger of the face, and whether it needed spragging?—The coal-miner would be the most capable man to do it, but my experience is that the coal-miner knows too much.

79. Do you mean to tell us that he can know too much about a coal-roof?—He knows more than you can tell him, and he will say it is safe when it is not safe.

80. Does he know more than a quartz-miner?—Yes; he does as regards coal.

81. Is that not one of the most essential features in working a place with the machines?—We have a different system from what was in vogue when you were here. We have deputies and timber-men who do the timbering for the men.

82. Who has to ascertain the necessity for the sprags?—I am speaking about the props.

83. We had evidence of a boy who got injured through a quartz-miner not spragging his face: do you think he is a more capable man than a coal-miner?—As regards spragging, I reckon that a quartz-miner is just as good as a coal-miner.

84. He would know the nature of the face by sounding it with a pick, what kind of roof it was, and so on, just as well as the coal-miner?—Yes. A coal-miner will do what he is told about the setting-up of timber. With our class of mining at the present time we have deputies and timber-men to arrange about the timber. For our work with the machines I say a quartz-miner is as good as a coal-miner. As far as my experience goes, a coal-miner is not so good as a quartz-miner with our class of mining, whether he is capable or not as a coal-miner.

85. *The Chairman.*] How long would it take a man of ordinary intelligence, but not used to underground work, to tell the nature of a roof by tapping it, or by sound?—It is only a matter of a few weeks. You can tell easily whether a saucer is cracked or not.

86. *Mr. Proud.*] You consider the coal-miner is too conservative in his ideas?—Yes; he will not change his opinions to suit the altered condition of things. We should be left behind if we did not advance with the times.

87. Are we not all taught by experience?—Of course we are. When we introduced machinery we had about ninety miners working the Coalbrookdale section, and we could not get a single man of them to work on the machines. We were to stand still? And yet they blame us!

FRIDAY, 8TH FEBRUARY, 1901.

ALFRED BENJAMIN LINDOP re-examined.

1. *The Chairman.*] How many years have you been in charge of the Denniston Mines?—Six years.

2. You have general control over the whole of the workings?—Yes. The mine itself is divided into two sections for the purpose of management, called Coalbrookdale and Ironbridge, each having a mine-manager who is responsible to the Inspector of Mines.

3. Is there any information which it is in your power to give to the Commission on this question of the pillars in the Big Dip?—I can only reiterate what I have already said before the parliamentary Committee of 1900. Previous to taking out the pillars in the Big Dip section I had an interview with Mr. Cochrane—in fact, several interviews—and ultimately we decided to take out all the pillars we possibly could, with the exception of 2 chains on the other side of the main creeks. We both knew that if we got those creeks in we should eventually lose all the coal. The Big Dip is rather a big section. It dips all roads in the form of a basin. It dips into the centre and rises in all directions, and the coal thins out to about 3 ft. The intervening strata between the top and bottom seams varies from 4 ft. up to 30 ft. Where the strata was 30 ft. between the two seams we were able to work out the top seam without relation to the bottom seam, and we took all those pillars out. When it came to the thinner strata between the two seams we took the top pillar a pillar-length in front of the bottom seam, and so we got most of the coal, with the exception of a few pillars mentioned by Mr. Dunn. I may say that before starting with these pillars Mr Thomas Brown, an old practical colliery-manager, John Greene, and myself had very serious consultations with reference to them, and the result has been that we have taken the pillars out that I first arranged with Mr. Cochrane should be left in for the safety of the mine; and I consider that, instead of any questions being raised as to the quantity of coal that has been left in these pillars, very great credit is due to my mine-manager, Mr. John Greene, and Mr. William Dunn for the quantity of coal they have extracted, which largely has exceeded my most sanguine expectations. The pillars that are now left in are all above water-level, and with the exception of a few in which the coal is unmarketable, owing to the amount of stone in it, it will be got out on some future day. At present they are standing to protect the tramways.

4. With regard to these other pillars at Ironbridge, why are you leaving them?—We are not leaving them.

5. Why have you not taken them?—It is easy to explain. I left them until the time was ripe to take them out, and I have started to take them out.

6. *Mr. Lomas.*] Are there any pillars on the right-hand side of the Ironbridge heading at the bottom of the dip?—Yes.

7. Are those the pillars you are leaving until you get the stone drive in?—We have been waiting for data to get to the bottom of this dip, and we have put a borehole down now. We have found the lowest point, and we are putting a water-level in which will command the whole of the Ironbridge section. We could not work these pillars until the drive is in. The other pillars are left in for the protection of the rope-roads.

8. *The Chairman.*] All the coal is cleaned, is it not, that goes out of the mine?—No.

9. Why do you screen any of the coal?—For domestic purposes.

10. Are you able to keep that separate in the holds of the ships?—Yes. An order comes in to load certain hatches.

11. What percentage goes in slack at this section here?—40 per cent. is slack.

12. And when that screened coal gets to Wellington do you know what it loses again?—No; Mr. Joachim will give you that. I practically finish with it at the foot of the hill.

13. Do you think the coal would travel best unscreened?—We have tried that at Lyttelton, but it is only an experiment so far.

14. Would you not get more household coal out of it if you screened it at its destination?—I am inclined to think we would if facilities were offered for it.

15. Which do you think would be the more economical—to screen here at the breakhead or to screen when the coal reaches its destination?—I am inclined to think it would improve the screened coal if screened at its destination.

16. You do not know the screened coal loses in handling?—No.

17. What do you do with the 40 per cent. of slack?—We sell every ounce of it. It is sold for gas purposes and as bunker-slack for steamers. Nothing goes to waste.

18. And you pay for it the same railway freight and carriage?—Yes; and the same royalty.

19. *Mr. Proud.*] I observe there is a good deal of breakage at the screens in screening the coal?—We have automatic screens to reduce that.

20. Would it not be an advantage if you had a lowering apparatus for it?—We have no room for it.

21. Could you not adopt the Granity system, and take your trucks to the bottom of the incline and screen there?—That is under consideration now.

22. Could you not make more classes of coal?—We have too many now, I think.

23. You do not make any nuts or peas?—We do not want to if we can sell the slack.

24. That is a very important branch of the trade in England?—They have to make a market for them. We have got a market for the slack.

25. *Mr. Foster.*] You heard what Mr. Dunn said about the depth of the seams. He could not answer the question as to the acreage?—I could not say what it is.

26. Could you tell us how long it took to extract those pillars?—No, I could not.

27. Nor the number of men employed on them?—No. I think Mr. Dunn said five or six.

28. At the time she was working in the solid how many men were then employed?—There were very few when I came. They were working up towards the fan. They had nearly finished the Big Dip when I came, so far as the bords are concerned.

29. I want to know the number of men it took to extract the bords and stentons, and the number it took to extract the pillars afterwards: what amount of coal has been taken out of the mine by bords and stentons—is it a third, or a half, or what is it?—It is considerably more than a third. It is very nearly a half.

30. Your pillars were short—14 yards?—I think they are 22 yards down the dip, and I think 18 ft. bords.

31. Are there no 16 ft. bords?—I do not think so. There was very little done in the bords in my time.

32. *Mr. Lomas.*] How much coal did you leave?—The bords were taken 6 yards wide. That left a block of 16 yards.

33. You had to take your stentons out of that?—Yes. Not quite a half was taken out the first time of working.

34. *Mr. Foster.*] Do not the miners make their own roof down in the bottom seam?—I do not think so.

35. Where was this ground worked 3 ft. low in any part of the mine?—The fringe is all round. The pillars were followed while they were profitable to work.

36. You say that the pillars that are left in some parts of the Big Dip are left because they are inferior?—Yes.

37. Did those bords and stentons cost the Westport Company 2s. 10d. to extract?—The pillars were left because of the stone in them. They are open to any one to see, because they are not below the water-level.

SATURDAY, 9TH FEBRUARY, 1901.

ALFRED BENJAMIN LINDOP re-examined.

1. *The Chairman.*] The properties of the Westport Coal Company are divided into what sections?—Two, the Coalbrookdale and the Ironbridge sections.

2. Will you give the Commission a description of the work done and the present conditions existing in each of those sections?—The Ironbridge section contains an area of 1,500 acres, and Coalbrookdale 1,000, or a total of 2,500 acres. The two seams are common to both sections, and vary from 4 ft. to 20 ft. in thickness. Sometimes one is thick and sometimes the other, and they

make an aggregate thickness of 21 ft. Included in the area was the Banbury Mine, a property consisting of about 100 acres.

3. Had you worked that right out?—About 20 acres of the Banbury area have been totally extracted. The remaining pillars are left in to support the main roads, and will be drawn out at some future time. The main haulage-road runs right through the Banbury seam.

4. Could you give us the number of tons taken out of the Banbury seam?—You might put it down as 400,000 tons.

5. How long ago is it since you took the coal out of the Banbury?—I understand it is about fifteen years ago. I have only been here six years.

6. About how long ago is it since you opened up Coalbrookdale?—About sixteen years ago. The cost necessary to open up Coalbrookdale might exceed £30,000, exclusive of inclines, and so on. It covers about 1,000 acres, and we have taken out about 80 acres. About half of the total 1,000 acres will be coal-bearing. The 80 acres mentioned includes the Big Dip section, and has been exhausted.

7. Beyond the 80 acres which have been thoroughly worked out you are opening up and now working about how much?—70 acres, which are standing on pillars.

8. In that 70 acres you have taken out about how much coal?—About one-third, and we shall practically get the remaining two-thirds. Of course, there will be some little loss owing to faults, but we shall practically get the whole of it. The 80 acres of which I spoke before, and which has been abandoned so far as working is concerned, does not contain any coal that could have been worked.

9. In the ground now opened in the Coalbrookdale section how many years' work can you say there are before you?—I estimate that in the Cascade section we have 100 acres in view which contain 1,000,000 tons of coal. Besides that we have 500,000 tons of coal standing on pillars in the Coalbrookdale section, and which we shall take out as circumstances require. At our present rate of output of 100,000 tons a year it will take us fifteen years to work the coal out. The quality of the coal is of the highest order.

10. Do you know of any other seam below the two seams?—No. We have the slates exposed in some of the creeks for 300 ft. or 400 ft. vertically.

11. What was the cost of opening up Ironbridge?—About £30,000. It contains 1,500 acres, of which we have extracted 40 acres from pillar-workings, and we are now operating on 100 acres in bord-and-pillar workings. I estimate we have in view there, in the Cedar seam, some 45 acres, which should yield some 450,000 tons. We have about 50,000 tons in view in the Kiwi section, and about 500,000 tons standing on pillars. Altogether we have 1,000,000 tons of coal in view there, which will take us ten years to work out. Besides this, I estimate we have another 600 or 700 acres proved to contain coal.

12. There is not the slightest ground for apprehension that the coal may give out?—Not in our lifetime. Another seam of coal has been proved in the Cedar Creek section, 9 ft. thick, of the same excellent quality. We have 100 acres of that.

13. What is there to prevent you increasing your output if the demand increases?—We are equal now to our lowering-capacity on the incline, and also our rope-road capacity. At the present time we have over twelve hundred mine-tubs in use to deal with 900 tons a day. In other words, our output is limited to our lowering-capacity and haulage-road.

14. In round numbers, what has been expended in the incline and other works at the Denniston Mines?—I should say about £200,000 at least.

15. You are employing about how many men?—About four hundred men and boys on the hill, besides others employed in getting timber, and so on. We employ at Denniston sixteen deputies, forty-one miners, twenty-two men timbering, fourteen blasters, twenty-six holing-machine men, twenty-six machine-boys, fifty-three fillers, fifty truckers; on the rope-roads we employ thirty-five men and boys, thirteen blacksmiths, twenty-seven engine-men, five carpenters, three horse-attendants; twenty-one men are engaged in tipping and lowering on the incline, four men loading goods, two weighmen, sixteen stonemasons and labourers, fourteen contractors lowering on the incline, and four of an office staff: making a total of 394. Our fortnightly pay amounts to about £2,000. They support a population of fifteen hundred on Denniston Hill, and about five hundred at Waimangaroa, who are all living on the employés.

16. *Mr. Lomas.*] What percentage of the 1,500 acres of the Ironbridge section can be profitably worked for coal?—I do not think more than one-half.

17. *The Chairman.*] Has the chief expense been incurred, or is there a great deal more money still to be spent?—In all these West Coast coalfields there are new developments every year. The coalfields are in detached blocks. Our total output up to December, 1900, was approximately about 3,000,000 tons. That is for Denniston alone.

18. *Mr. Proud.*] As against the large expenditure necessary to open up these detached sections of coal, you have the advantage of easily worked seams, easily ventilated mines, and a very high quality of coal. The natural facilities are such that you are enabled to put in water-levels to drain your coalfields?—Yes.

19. *The Chairman.*] Who owns the railway-line from the foot of the incline to the Waimangaroa?—The Westport Coal Company.

20. How long is it?—A mile and a half.

21. What was the cost?—Approximately, about £20,000. We purchased portion of it from the Wellington Coal Company.

22. How is it worked now?—The Government work it for us.

23. What do you get for running over it?—They charge us for the maintenance. I am not quite sure what the terms are upon which the railway is run. Information on that head can be got at Dunedin.

24. What is the length of the incline?—90 chains. The highest grade is 1 in 1, and 1 in 2, in the bottom incline. The fall is 2,000 ft. The wear-and-tear of the rolling-stock is very great. Our rope account runs us into £1,000 a year for the incline alone.

25. You have to run the coal how far before you get it into the Government railways?—Over two miles and a half.

26. How far has the coal to travel from the seam to the Government railway?—Five miles and a half.

27. *Mr. Lomas.*] What are your losses for the year in Government rolling-stock—for broken trucks, &c.?—It is very slight. Our incline at Denniston alone cost £50,000 at least. The exact figures can be obtained at Dunedin. The goods traffic for Denniston by the Government railway is under £350 a year, and is not an advantage to the company.

HENRY SOWERBY, Mine-manager at Ironbridge, examined.

1. *Mr. Lomas.*] Is that the usual condition of the mine as we saw it to-day, as to safety and ventilation?—Yes; everything was in a normal condition to-day.

2. Nothing was done to put the mine in a special condition?—No.

3. Is due care taken with regard to taking out the pillars?—Yes, both in regard to getting as much coal as possible and to safety.

4. Has any man been injured while taking out the pillars?—Only one—William Duncan—who was caught while holing. He was holing underneath, when the coal came away under his long sprag and put his collar-bone out. That is the only accident we had during the twelve months. When I was going round I told him to put the chocks in, because, owing to the condition of the coal, the long sprag was not trustworthy; but he had not put the chocks in, and the coal came away from under the long sprag.

5. *Mr. Proud.*] How much coal do you lose in taking the pillars out?—I do not think we lose 10 per cent., so far. We have averaged 90 per cent.

6. *The Chairman.*] What are you doing with all the screenings up in the shoots?—I think they go to Westport for bunker-coal.

7. Apparently there is no slack being deposited on the hillside?—Everything but stone goes to Westport.

8. *Mr. Proud.*] Do you not leave any slack in the mine at all?—There may be a little for packing the roads, but everything else is shovelled up clean.

9. *Mr. Foster.*] You say you are getting all the coal within 10 per cent. from your pillars?—Yes.

10. That applies to the pillars being worked now?—Yes.

11. You cannot speak for the pillars taken out long ago?—I will not speak for any other pillars.

12. How long had the ground been standing previous to the pillars being taken out?—Some two years, I think; but I cannot say from my own personal knowledge.

13. Take the Kiwi section: how long has that been standing?—About six weeks before we started to take them out.

14. Do you not think the extraction of those pillars has something to do with the production of coal?—I believe it has. It costs less, because we have not to retimber the places; but I do not know that we extract any more coal.

15. The roof has not fallen in?—No.

16. You have everything under your command?—Yes.

17. If it had been standing three or four years do you think you would be able to get on all right with it?—We are taking pillars out now where they have been standing over two years. Of course, if it had been standing for six or seven years, and the timber had become rotten, we would have to go the expense of retimbering the places to get into it.

18. The reason you can extract so much of that coal is because the pillars have not been standing so long?—I do not say that. I say we can extract it cheaper, because we have not to retimber the places and practically open them up to get into them; but, as to extracting the quantity, it will make very little difference.

19. You are taking the pillars off in lifts?—Yes. Safety is the first consideration. I would rather lose a whole lot of pillars than that one man should be injured.

20. Do you consider lifting a better system than splitting pillars?—No; I cannot say that I do, because in some cases you may have loose ground alongside of you. I have tried both systems. I have one split now, and I do not know that it is going to make any difference. It made a safer road to get to it; that is why I split it. I believe in lifts.

21. Do you not think that in splitting you are liable to lose your stumps?—I do not think there is any difference. I have never lost any stumps yet.

22. *Mr. Lomas.*] Does the 10 per cent. you lose mean 10 per cent. on the whole of the pillars in both mines?—On the big seam.

23. What is the percentage in the little seam?—It will not average 4 per cent. We have got some of them out—not clean, but very near it.

24. Are there any pillars in your mine which have been standing many years?—Some must have been standing a few years. I have been here some thirteen years, and Ironbridge was started some time before that.

25. What reason has the company for leaving the pillars?—We cannot get them on account of the water. They are kept in to keep the surface-water out of the mine until we can get the water-drive in to let the water come out, instead of having to pump it. When the drive is in it will command the field and drain it all.

WILLIAM DUNN examined.

1. *The Chairman.*] What position do you hold in the Westport Coal Company's mine?—I am mine-manager for the Coalbrookdale section.

2. Will you describe to us the work that has been done in the Big Dip section?—The work that has been done since I have been here is principally removing the pillars. There are several creeks running over the surface, and it was necessary to leave pillars of coal along each side of these creeks so that we might be able to get as much coal as possible when letting the water in to flood the mine. When I came here the ground was considerably broken to the surface, where the pillars had been taken out. There was a man constantly employed watching these breaks, and putting fluming across and plugging the cracks in the rocks in the beds of the creeks to keep water from running into the mine, and there were miles of surface-drains to lead the waters away from these creeks and into the channel. We took the pillars out of the section that were least likely to damage the creeks. Then we came back to what is known as the Little Dip section, and we went to the outside pillars there and removed them back towards the creek from that direction. There was a considerable portion of a top seam, and we wrought the pillars out in the top seam, one pillar leading in front of the bottom-seam pillars. We wrought that back as far as it was safe to do so on account of the parting between the two seams. At first that was very thick, but it thinned out towards the opening of the mine. When we came back to where it was so very thin between the two seams it was then a question of taking the best seam. When we decided that we had taken everything we could get without injuring these creeks we commenced to take the pillars out underneath the creeks. Of course, we had a great quantity of storm-water when we commenced to remove those pillars, and we brought the bottom and the top seam back to what was known as Lomas's flat sheet. There were two pillars width and three pillars in length that were left standing in the bottom and top seams. Both seams had been taken out to that extent. These were right over each other, but one came down the dip to the shaft, forming a lodgment for water. A great quantity of water came in in consequence of very heavy weather at the time, and we had to leave the bottom seam. We commenced then to take out the top pillars from what we call Lomas's flat sheet, as we could not get into the bottom pillars in consequence of the water. We got a good portion out of the top-seam pillars when a heavy storm came, and the water rose up over the flat sheet. There was a lot of fireclay in between the two seams, and the water rising in the section over this fireclay to such an extent I did not consider it was safe to go back on to these pillars again, owing to the fireclay swelling through water, and damaging the timber underneath. Taking it on the whole, I think we got a great deal more coal than we ever expected to get in these pillars. We put the pump into a shaft we had further up to keep the water down, and we then came down to the little dip and commenced removing the pillars there. We then went down to the outer part of the little-dip road, and commenced to take the pillars out, bringing them towards the little-dip road. We wrought these pillars back until there was such a quantity of stone on that side that we ceased to worked them out for a time. The other pillars down the main-dip road, and away along towards the fan, we had to leave to protect the cliff and prevent injury to the steam-pipes leading to the fan. We also had to leave some of the pillars to protect our airway from the Cascade to the fan. These pillars can all be got.

3. Are there many signs of the surface having fallen in?—There are cracks there a foot wide.

4. *Mr. Proud.*] If the mine were drained, could you work that seam?—I do not think a great deal more coal could have been got.

5. *The Chairman.*] How have you managed the drainage in the Coalbrookdale Mine?—The Cascade and Munsie's sections, also the new section, have been drained by under-level tunnels.

6. The Cascade section is drained by what?—Under-level tunnels to Cascade Creek.

7. How is the Cascade section ventilated?—By a fan.

8. *Mr. Proud.*] What explosives do you use?—Compressed powder.

9. No dynamite or nitro-glycerine?—No; we sometimes use gelignite to blast rock with, but very little of it. We also use it for tunnelling.

10. What do you clear the air with afterwards?—We have always been able to get rid of the fumes by ventilation.

11. You have never had to use a spray?—No, not in any work that I have had.

12. Are the miners allowed to fire their own charges?—No.

13. Who fires them?—The deputies are appointed shot-firers.

14. How many deputies are there in the Denniston mines?—There are nine deputies under me in the Coalbrookdale section. They are authorised by writing to fire shots, and they have conditions attached to their duties.

15. Is there proper and effective signalling communication in all travelling-roads?—Yes.

16. And manholes?—Yes.

17. What kind of lights are used?—Naked lights.

18. Have they been found quite safe?—Yes, quite safe.

19. Have you anything to do with the steam machinery employed?—Yes.

20. Do you know how often the boilers are inspected?—They are inspected annually.

21. How long is it since they were inspected?—I could not tell you the date. Our engineer looks after that and the machinery, but I have to apply the machinery to the work.

22. On the pit-bank, in all places where men are working, is there proper protection from the weather?—Yes; we have sheds.

23. Do they fairly protect the workmen from the weather?—Yes. In Munsie's section we have a cabin with a fire in it. We had a shed over the place, but it was constantly getting knocked down.

24. But they cannot work in the cabin and go in the shed during wet weather?—It is intermittent work. The place is at the foot of Munsie's section.

25. There is no shaft in any of these mines except for ventilation ?
26. And no lowering?—No.
27. *Mr. Lomas.*] How much coal do you think in that Big Dip is really lost in the shape of pillars?—I do not think there is a great percentage. There are those pillars which I have told you about, and I dare say half the top pillars were lost in the piece I spoke of.
28. What was the thickness of the fireclay between the two seams there?—8 ft.
29. What was the thickest part of the fireclay between the two seams?—I should say, 30 ft.
30. What would be the thinnest part?—It pinched out to nothing. We found it more difficult where the fireclay was thinnest.
31. Did you find it was more difficult where it was 8 ft. thick?—Yes.
32. It was not so difficult for the bottom seam?—No. The weight of the strata came upon the top one into the fireclay and broke it, and we had to use very great care with the timber.
33. *Mr. Proud.*] What you say as to the pillars being lost applies to both seams?—Yes; at Lomas's flat sheet.
34. *Mr. Foster.*] What is the average width of the top seam?—4 ft. 6 in.
35. What is the average thickness of the bottom seam?—As far as 15 ft. and 16 ft., and I took some out as low as 3 ft.
36. What would be the average of the bottom seam?—It would average, say, 10 ft.
37. What is the acreage of these workings?—I do not know. I have never measured it by the scale.
38. The plan does not show it?—I have never scaled it.
39. How long did it take to stand that district on pillars?—It was all on pillars before I came to the place.
40. How many men do you have extracting those pillars—how many pairs?—I had as many as twenty pairs.
41. And down as low as what?—Five pairs.
42. That would be an average of fifteen pairs?—Yes.
43. How long did it take you to extract all those pillars from that dip?—I was there two years and nine months, roughly speaking.
44. *Mr. Lindop.*] Do you know of the arrangements we made as to the pillars we were to leave in when we started?—I was instructed to leave two pillars underneath the creeks.
45. Have you done that?—Yes; we did so at first.
46. Are they now in?—No; they are removed.
47. They are all taken out?—Yes.
48. Now, with regard to these pillars that you say you left in, could you take them out?—Not with any reasonable safety to life.
49. You have got a certificate of competency?—Yes, for New Zealand.
50. You have been engaged in mining all your life?—Yes.
51. With your practical experience, do you consider that any coal has been left inside these pillars that could have been taken out?—No. Taking all the circumstances into consideration, I consider we got a large percentage of coal out.
52. Do you think you can look with pride at your own work?—Yes.
53. All those pillars above water-level will be taken out eventually?—Yes.
54. *The Chairman.*] Why are they not taken out now?—They are underneath the cliff where the steam-pipes go to the fan, and there is a return airway going through them from Cascade section.
55. *Mr. Lindop.*] Would you mind giving the Commissioners the general output of the machines for each bord?—About 30 tons from one holing in a fair average bord.
56. What is the height of the undercut?—15 in., and it works down to 4 in.
57. What is the space a particularly good holer would occupy?—He would take it about the same height. If a miner takes out 18 in. he did not hole anything like 5 ft.
58. How deep does the miner hole?—About 18 in., and takes out about 4 ft.
59. Have you anything to say with regard to the quality of the coal under the machine system and the wholly manual system?—The machine produces a good quality of coal if it is in good coal, and if it is inferior coal the coal would be inferior.
60. Is anything to be said in favour of the machine or the pick as far as the size of the coal got is concerned?—No; I do not think one is better than the other.
61. Will you say the machine is equal to the pick?—Yes.
62. And no better?—I say we can get as good coal as with the pick.
63. You never entered into a correct computation of the relative cost?—No. I know the cost in the mine, but the motive-power is provided for me by the engineer.
64. *Mr. Lomas.*] With regard to ventilation, is the air generally as good in the mine as it was yesterday?—Yes; but there are days when the mine is clear of powder-smoke, and days when it is not.
65. Is there about the same quantity of air travelling through those travelling-ways as we saw yesterday?—Yes.
66. *The Chairman.*] Does the machine affect the ventilation at all?—When the air is exhausted from the machines there is a sort of haze arises from the evaporation. The air from the machines will improve the ventilation.
67. You say the effect of the machine is to improve the ventilation, because there is an escape of compressed air from the return stroke of the piston, and that is pure compressed air?—Yes.
68. Will you take it upon yourself to assert that the machine really, if anything, improves the air?—Yes, it does.
69. Does it cool the air in the places?—Yes.

GRANITY.

MONDAY, 11TH FEBRUARY, 1901.

WILLIAM DAVIDSON, Coal-miner, examined.

1. *The Chairman.*] How long have you been working in Granity?—About four years last May—since the mine has been opened.

2. What do you wish to say?—I did not intend to touch upon the machines; but, as Mr. Maddison failed to give an answer as to the health part of the business, I would like to say that the only thing that could be said with regard to them being injurious is that the exhaust air blows up the fine dust, and the whole atmosphere is composed of coal-dust. If any one breathes that I consider it is injurious to health. One of the boys employed is in the local band, and I have seen him take his handkerchief to wipe the coal-dust out of the mouthpiece of his instrument.

3. Is that not the case with all miners: is not the whole atmosphere charged with fine dust?—Not so much with hand-labour as with machine-work.

4. If a fan was blowing air into the mine, would that not stir the dust up?—Yes. The exhaust blows the dust about, and it mixes with the atmosphere. With regard to the difference in cutting the coal with hand-labour and the machines, the miner generally knows the nature of the coal and can charge his shots to do better work than the machines, and shooting fast is an advantage. A man who is always in the one place and knows the nature of the coal would put his powder in to better advantage than a man travelling round to a number of places. As to the number of shots in hand-labour bords, there are three in the bottom part and from two to three in the tops. That would be from five to six shots. With the machines they generally put a pair right in the centre, two in the back end, and usually three in the tops.

5. They use seven where the miner uses three?—No; in hand-labour they use from five to six. So far as the work in the mine is concerned, Mr. Maddison and I have been check inspectors ever since the opening of the mine until the last two inspections. We generally made an inspection monthly, but sometimes had gone six months without doing it, as we found everything was in good order. When we visited the old workings we found that everything had been attended to. We were quite satisfied with the officials in charge, and felt pretty safe in leaving them to look after things.

6. *Mr. Lomas.*] Have you any fault to find with the Government Inspector of Mines?—I might say that we received valuable information when we first tackled this work, and Mr. Tennent always put us right in anything we were not *au fait* in, and we are quite satisfied. I might say that when he was appointed, all over the Coast it was thought the best man was put in. We had always contended that a good practical man should be appointed as Inspector.

7. Have his inspections been at satisfactory intervals?—Perfectly satisfactory. I might say that we have made three joint inspections with Mr. Tennent, both in the old workings and through the bords. We have always found him to attend to his duties. With regard to drainage, I think there is any amount of fall for a low level, but the area there is limited, and would not warrant the cost. In the lower part of the mine it is surrounded by a fault, and I do not think it will be a very great time before it is worked out there, with the exception of the pillars. There was nothing there when I was last round but what could be got at any time.

8. Have you any idea as to how long it would take to take out the pillars, supposing the company started to do so?—I should think a couple of years would make a big hole in them in the Dip and the Rise sections.

9. Do you think the pillars could be taken out of the Rise section with safety to the haulage-road, and without letting the water in?—Yes. If the road were put in they could get some of the pillars there. The whole thing is a sideling, and in conversation with the late manager, Mr. Brown, he said there would never be a pillar taken out if he had his way.

10. *The Chairman.*] They are only winning 12 ft. out of a 50 ft. seam?—It varies a good deal. We have several times put up rises to see what the top seam was like. There is a band between the two seams in places, and I think it is worked to the best advantage.

11. *Mr. Lomas.*] What thickness is the band in Mine Creek?—It runs up to 2 ft. It only showed up to 1 in. thickness a day or two ago, and now it is 2 ft.

12. *The Chairman.*] What will there be below that band?—I noticed in a place below there seemed to be about 5 ft. of coal, or what we call "wild coal," some of it. There is generally considered to be about 30 ft., which varies in quality. You may get hard coal for 6 ft. or 10 ft., and then it would run out. In most of the places in the rise the coal is not big coal.

13. Taking an average seam of 30 ft. of the same sort of coal, there would not be more than 10 ft. or 12 ft. of marketable coal in it—that is, screened coal?—Yes; that has been our experience here.

14. And you seem to think it is doubtful whether the pillars will be taken out?—Yes; I think it will have some effect on the haulage-road.

15. Then, the result is that the Dip and Rise sections are pretty well exhauted?—There is not much left.

16. What is there in Mine Creek?—Judging by the boring, with which I was connected for some considerable time, I think there are some years ahead of us in Mine Creek. Of course, it varies the same as it does down here.

17. How long is it since you put any bores down?—About eight years.

18. How long is it since the last bore was put down?—There have been bores put down in parts since. It is about eight years since a bore was put down on the track of the main heading in Mine Creek.

19. Have they not done anything in the shape of boring since then?—Yes; but I could not keep the run of the field since I was boring.

20. Have you worked in the Mine Creek section?—Not in the coal. I have prospected in the creeks, but all I have done was inspecting up in that part.

21. Do you know the country at all outside the company's area?—Yes; I bored for the Ngakawau-Westport Coal Company.

22. Will you give us your opinion about the country outside the company's area?—There was no coal outside the Ngakawau area—that is, about three miles and a half at the back of the bins. The company spent a lot of money in boring and prospecting in that section.

23. Do you think there is any valuable country there?—There is behind the Westport Company's lease.

24. What part would you call it?—It goes by the name of the Forty-acre Block.

25. *Mr. Lomas.*] Is the country very broken between the Ngakawau and there?—Yes.

26. For the whole three miles and a half?—Yes. There is nothing to speak of until we come to what we call "Benton's outcrop," named after Professor Benton, of Sydney. The Ngakawau Company worked what is called the old Albion Mine there some eleven years ago, but closed down after working it for about two years.

27. *Mr. Proud.*] What thickness of coal did you find in the boreholes at the Ngakawau?—They were small seams. The coal we got was generally in pockets in the hill. The borings were pretty deep—one was 240 ft. deep—but we did not get coal. We were in what was called Gravel Creek. They bored right from the old Albion Mine until they got back to the Forty-acre Block, and there was no coal found until we got to the Forty-acre Block, and I consider this field will contain a good quality of coal.

WILLIAM MADDISON, Secretary to the Granity Creek Miners' Union, examined.

1. *The Chairman.*] How many men are there in the union?—One hundred and seventy-five members, including men and boys.

2. We will take anything special which you desire to lay before the Commission in reference to these mines?—We have not decided upon any particular evidence we wish to give.

3. Have you any grievances?—None, except in connection with the machines.

4. Is that the only thing?—Yes.

5. How long have you worked in the Granity Creek mines?—Four years last May.

6. In which section have you been most employed in?—I have been employed pretty well all over the mine.

7. In the Dip and Rise sections?—Yes.

8. Have you worked in the Mine Creek?—No.

9. How do you find the ventilation?—Very good.

10. *Mr. Lomas.*] Do you mean in every part of the mine?—Yes.

11. *The Chairman.*] And at all times?—Yes.

12. Have you anything to say as to the travelling-roads—as to whether they are kept clear for escape, and so on?—Yes, they are very good.

13. Is there a safe means of exit in time of danger?—Yes.

14. Is the mine well drained?—Yes.

15. How is it drained?—By pumping.

16. Would it not be possible to drain it by a low level?—That is a question I would hardly like to answer.

17. You do not know of any damage by fall in the mine?—No.

18. In this Dip section what is the height of the seam?—I do not know except by hearsay.

19. Have you never taken the trouble to inquire?—No.

20. What thickness are you working?—10 ft.

21. *Mr. Lomas.*] Is that the thickness in all the bords?—All the bords that are worked by hand-labour.

22. What thickness do they work where the machines are employed?—14 ft.

23. *The Chairman.*] What distance are the bords apart?—They are supposed to be 22 yards.

24. And the stentons?—The same, I think.

25. Then, the pillars are 22 yards from centre to centre, or 16 ft. square?—Yes.

26. And these pillars are left at present?—Yes.

27. Are they being worked at all?—Not to my knowledge.

28. What work is being done in the Dip section?—The machines are working in the Dip section at the present time.

29. What are they working at?—The bords.

30. Is it not all worked up to the boundary?—Pretty well, I think.

31. Are they increasing the height of the bords?—I do not think so.

32. They are still working for 10 ft.?—The machines are working 14 ft., and are going round that way. They have not broken into where the miners are working in the dip.

33. Have you seen the machines at work?—Yes.

34. And the bords are how high?—14 ft.

35. And the headings?—Some run to that height and some less.

36. You complain about the machines, I understand?—Yes.

37. Will you tell me all about them, and why you complain of them?—I think they are detrimental to the interests of the workers. There would be more miners here if it was not for them.

38. Why?—I think it is against the welfare of the coal and against the interests of the place, because there would be a bigger town here if it was not for the machines, and more men would be employed. Fillers have to fill 34 tons for 10s.

39. How are the fillers paid?—34 tons for 10s. for two men. Whatever they fill over that they get 7d. per ton for it as an encouragement to "bullock."
40. Do you consider 34 tons a fair day's work?—Yes, for two men.
41. What do they make in bonuses?—It runs from 2s. 6d. to 3s., independent of their day-pay of 10s. per day.
42. The men average that sometimes for a fortnight?—Yes.
43. Suppose they fill 5 tons a day or 1 ton a day?—They get 10s.
44. What do the men get who drive the machines?—11s. a day.
45. What do you call them?—Machine-men.
46. Do they get any bonuses?—No.
47. *Mr. Lomas.*] Is that hard work?—They consider the compressed air the worst thing they have to contend with. They do not consider it healthy.
48. *The Chairman.*] What is the matter with it?—I cannot tell you—I am not a doctor.
49. *Mr. Lomas.*] Has anybody been laid off work, or has any doctor said it was injurious?—I cannot say if anybody has been laid off with it.
50. *Mr. Proud.*] It is mere conjecture, do you not think: you have no ground for saying so?—I have no ground to go on to say positively.
51. *The Chairman.*] The air is cold, is it not?—Yes.
52. Were you ever working at the machines?—No.
53. Can you make more at the ordinary labour in the mines than the machine-men get?—Yes.
54. How much more?—Perhaps 6d. or 1s. a day.
55. What is the hewing-rate?—2s. 3d. per ton.
56. What can you hew in a day?—It runs from 10 tons upwards.
57. *Mr. Lomas.*] Is that for one man or two?—Two men. From 10 tons to not above 12 tons.
58. *The Chairman.*] In eight hours?—Yes.
59. *Mr. Lomas.*] Have these rates of pay, such as filling, and the machine-men, and tonnage-rates, been fixed by the Arbitration Court?—By agreement with the company.
60. *The Chairman.*] How many machine-men are there in this mine?—About six or eight men.
61. And about how many coal-getters?—Twenty-four colliers.
62. Have you anything to say about the men who are employed as machine-men?—No.
63. *Mr. Lomas.*] Do you know if they are satisfied with their work?—Yes, they are all pretty well satisfied with regard to that branch.
64. Is the mine generally in the condition we found it to-day in regard to ventilation, timbering, and so on?—Yes.
65. *Mr. Proud.*] Which do you consider makes the better coal—the machine or hand-work?—The hand-work.
66. Which makes the most fine coal or dust—the undercutting or holing?—The machine makes the most dust.
67. *Mr. Lomas.*] Why does the hand-work make the best coal?—Because it is filled away as they get it, while in the other case all the coal is blown down and is knocked all to pieces. It goes on to a clean floor, where it is hand-worked, and is taken down separately instead of being taken down all at once, as in the case of the machine.
68. But it is all blasted: what is the difference?—Where the machine holes down it is taken down in a body.
69. Do they not shoot the coal down twice with the machine?—Yes. In a 10 ft. place two shots, and in a 14 ft. place two. There are four really in the two places.
70. *Mr. Proud.*] Do you think the nicking in hand-working improves the condition of the coal?—Yes.
71. *Mr. Lomas.*] Have you anything to say about the management of the mine at all?—No.
72. Is that satisfactory?—Certainly.

TUESDAY, 12TH FEBRUARY, 1901.

GEORGE FLETCHER examined.

1. *The Chairman.*] You are mining-manager of the Granity mines?—Yes.
2. They are known as the Dip and Rise of Lester's workings?—Yes.
3. And then there is also Mine Creek?—Yes.
4. You have been manager here for how long?—Two months.
5. Taking the Dip section, what can you tell us about that?—The area of that portion of the coalfield will contain about 67 acres.
6. Of which how much has been gone over?—There has been won from that area practically 500,000 tons since the commencement of the mine.
7. Can you give me an estimate of what you expect to get from it?—We estimate the average thickness of the seam to be 30 ft., and the total quantity of coal in an area of that thickness will represent 3,000,000 tons; and I think you may safely say about two-thirds of that will be won altogether.
8. It has been worked on the pillar-and-bord system?—Yes.
9. Have you gone over the whole 67 acres?—Very nearly so.
10. Do you propose to take out the pillars now or to leave them?—We have not decided upon taking those pillars out yet. We propose to leave them for the present.

11. Can you tell us the reason for leaving them?—We are not ready to take them out yet, and it might be six or eight months before we are. Before we take them out we have to be guided by the nature of the roof, so as not to let in the water to stop us altogether from getting all the coal. We have a special drive to put in to meet the exigencies of either water or spontaneous combustion.

12. Is that the stone drive?—Yes.

13. Does that apply to the Rise section as well?—Yes.

14. It is only the Dip section you say takes the 67 acres?—No; that includes the Rise side of Lester's heading as well as the Dip side. Of course, those two workings are connected.

15. Do you work the Mine Creek area from the Lester's heading area?—The coal in Mine Creek goes through Lester's area.

16. Will you tell us what you have done in the Mine Creek area?—It is really all virgin coal yet. We have got a facing opened out of 207 yards from east to west.

17. Are you developing it fast?—Yes, as fast as ever we can.

18. *Mr. Lomas.*] What about the daily output from Mine Creek?—At the present time it is about 350 tons a day.

19. Practically half of your output?—Yes.

20. How long has that been opened out?—About five months.

21. *The Chairman.*] What are you getting from the Dip and Rise?—About 350 tons. The quantity out of Mine Creek has risen very rapidly during the last month. The total output now is about 730 tons a day.

22. *Mr. Lomas.*] Do you anticipate any difficulties in front of you in the bords you are driving there?—I could not tell you that. We know of a fault a long way in front of us, but before we meet with that fault we have a long life before us.

23. *The Chairman.*] Coming back to the Dip and Rise and the 30 ft. seam, what thickness o that do you expect to be able to win?—About two-thirds of the thickness.

24. What is the thickness of the coal in Mine Creek?—As far as we have gone it is about the same—30 ft.

25. Do you expect to get two-thirds of that?—We do.

26. What distance do you have to draw the coal from the Dip and Rise to the brakehead at Millerton?—It is all by gravitation from both mines.

27. By means of a wire rope?—Yes.

28. And the length?—The total length is about two miles horizontally.

29. Is there anything special to tell us about the haulage-roads?—No; only they are of very heavy grades.

30. From the brakehead to Granity you lower the coal by a self-acting incline?—Yes.

31. Is it not the same from Mine Creek too?—Yes.

32. The incline up Millerton Hill is separate and apart from the other?—There are three inclines, governed by three distinct brakes. The self-acting incline is capable of lowering 1,000 tons a day.

33. But, considering it is only a single line, it is not safe to work it up to more than how much?—It is safe to work up to 1,000 tons, but you are liable to so many stoppages that it is fair to estimate it from 800 to 850 tons a day.

34. Have you met with any difficulties in ventilating the mine?—Not since I have been in charge.

35. What sort of ventilation have you?—I think it is the best-ventilated pit that I have been down.

36. How is it effected?—By mechanical means—a Schiele fan.

37. Do you use machines for holing the coal?—We do.

38. How many?—We have thirteen altogether, but they are not always at work.

39. What are they called?—The York machine and the Liness machine.

40. Do you approve of them?—Yes, I do.

41. What do you say as to their making the coal smaller than hand-work?—I do not think it does, because we can do a greater depth of holing than by hand. I do not think they make any more small coal.

42. What do you pay the men working them?—11s. a shift.

43. Is there any bonus paid for the men doing more than a certain quantity of work?—Not to the machine-men.

44. To the fillers?—Yes.

45. What do they get?—10s. for 17 tons per man. For all over 17 tons I think they get a bonus of 7d. per ton.

46. *Mr. Lomas.*] What do they average, including the bonus?—From 11s. to 13s. a shift.

47. *The Chairman.*] Have there been any accidents?—No, except a nipped finger. There was nothing serious to report during the whole of last year, or during the year previous.

48. Do you work satisfactorily with the Inspector of Mines?—Yes.

49. Do you wish to report any matters?—No. I try to do everything that is right, for the sake of the Inspector and myself.

50. Is there more than one exit from every place of working for the miners in case of accident?—Yes.

51. Safe ones?—Yes, quite safe.

52. *Mr. Lomas.*] Can the men travel the back heading for choice?—They are confined to the haulage-roads, except in cases of emergency.

53. Are there manholes at proper distances?—Yes.

54. *The Chairman.*] Where do you screen the coal?—At the bins, where the trucks land at the bottom of the first incline.

55. What proportion of coal do you screen before you ship it?—About one-third of the output.

56. *Mr. Proud.*] What percentage of round coal do you get?—Not more than 40 per cent.; but, of course, I have not had an opportunity of testing that yet. We have never been a full week or fortnight screening the output. Moreover, the coal is so tender, especially the top portion of the seam, that we cannot screen it.

57. *The Chairman.*] You send two-thirds away unscreened?—Yes, I should say so; in fact, more than two-thirds.

58. I suppose you cannot tell us anything about the prices obtained?—No.

59. *Mr. Lomas.*] I suppose portion of the coal is screened in Lyttelton?—I do not know what they do with it after it leaves here.

60. *The Chairman.*] Can you tell us anything about the outlay in works?—I cannot tell you the total cost of the plant. I know it is very considerable.

61. What does your fortnightly pay amount to?—For eleven days, about £1,300.

62. What population do you think is living on that?—I am sure I could not tell you that.

63. *Mr. Lomas.*] What number of men and boys are employed for that amount of money?—The employés above ground number 75; below, 172: total, 247.

64. *Mr. Proud.*] I suppose by wedging you would not get the coal in any better condition, owing to there being no parting?—No.

65. *The Chairman.*] This mine is how far from Westport?—About 17½ miles.

66. Do you know what the haulage-rate is on the railway?—2s. 3d. a ton.

67. The royalty is how much?—6d.

68. And there is ½d. for the Accident Fund?—Yes.

69. They are all the charges, are they not?—To the best of my belief they are.

70. Are you prepared to tell me about the works in contemplation?—There is only the pushing-forward and developing of Mine Creek. We are erecting a large coal-bin to hold 2,000 tons, alongside the present coal-bins.

71. You do not anticipate a larger output than 700 or 800 tons a day?—Yes; we anticipate getting up to between 800 and 900 tons a day.

72. Have you had any trouble with your workmen at all?—There has not been a single complaint since I have been here.

73. How was the price for hewing coal settled?—By agreement.

74. Was it by mutual agreement or by the Conciliation Board?—It was fixed by the district, I think, by mutual arrangement between the men and the proprietors.

75. How many coal-getters have you in the mine?—At present we have thirty-six coal-hewers. They have nothing to do with the machine-men.

76. Out of a total of how many hands?—247.

77. Do you take all your smudge out of the mine?—Everything is cleared away except dirt, and there is very little of that.

78. There is no slack-heap outside?—No.

79. All is taken away and shipped?—Yes, as far as I know, after it gets to Westport.

80. *Mr. Proud.*] How many cubic feet of gas can you get from your coal per ton?—About 11,000 ft. The traction from here to Westport is very high.

81. *The Chairman.*] Do you think it would be fair if the Government were to take in a thirty-mile zone, and to charge a uniform rate within that zone?—I am not prepared to answer that question. I think there was some difficulty about the same thing in the Illawarra district.

82. Have you any reason to urge against the Government charging the same price from Mokihinui as from Waimangaroa for coal?—I think there should be a little concession on the part of the Government to Mokihinui, and *pro ratâ* to these places.

83. Supposing, for the sake of example, the Government were prepared to make a uniform charge for the haulage of coal from the Mohikinui Mine, and anywhere else along the line, to Westport, have you anything to say in favour of or against that?—I think it would act prejudicially against the places nearer to Westport; that is to say, if the far-off places had a superior coal it would be against the places nearest to the port.

84. Assuming that the coal is of equal quality, have you any reason to urge for or against it?—Yes; I think we could scarcely expect the Government to run thirty miles for the same rate as they run twelve miles. Putting the Government in the position of a private railway company, how could they make their railways pay if they ran a train of trucks thirty miles as against twelve miles for another train of trucks?

85. Suppose this state of things: suppose the Mokihinui Company had a railway of their own six miles long, or other haulage, would that not entitle them to some concession if they had also to run over thirty miles of Government railway?—I do not think it would.

86. *Mr. Lomas.*] I suppose all your fillers and truckers are single men?—Yes, nearly.

87. *Mr. Proud.*] How many tons of coal per annum per man do you get from the machines, and how many by hand-labour?—I could not answer that at present, because they have not been very long on the machines.

JOHN GREEN, Mine-manager, examined.

1. *The Chairman.*] How long have you been in the Granity Mine?—Three years and a half.

2. How long has the mine been open?—I believe about four years and eight months.

3. I suppose you have seen most of the work done in the Dip and Rise?—Yes; it has been developed practically under my supervision.

4. What is the thickness of the seam?—It will average 30 ft. It is more in some places and less in others.

5. What is the character of the coal?—Principally soft. We have some very good hard coal in places, but it is very patchy.

6. What is the result of it being so soft?—I dare say the getting of it is a little easier.

7. What is the quantity you are able to win?—I have not gone into it.

8. Are you able to get as high a percentage out of soft coal as you are with hard coal?—Yes, much the same.

9. Are you able to take the pillars out in soft coal as well and as safely as if it was hard?—No.

10. What effect has the softness of the coal on the mining operations?—We cannot timber it so well when it is soft. It needs more timber, and it will not stand the pressure like hard coal; it is apt to break.

11. What thickness are you taking out?—About 12 ft.

12. Would you be able to take out more if it was harder?—If it became a question of taking out the pillars we could take more; but for the purpose of the pillars being taken out it is better to leave the top coal for the present.

13. When do you anticipate being able to take the pillars out?—In the lower section we are getting nearly worked out, but my advice is not to touch the pillars for many years to come.

14. Why?—On account of the liability to fire.

15. How long a period do you expect to work the Dip and Rise Mine?—The Dip and Rise portions will be finished this side of twelve months, so far as the bords are concerned.

16. Then, you will have to depend upon Mine Creek wholly?—Yes, after that.

17. Do you consider that taking out the pillars on the Rise and Dip would interfere with the main haulage-road at all?—No; but in case of fire it would.

18. But not through any fall or settling?—We would not take any pillars out of the Rise side of the haulage-road.

19. But from the nature of the surface outside would there be any undue danger, in taking the pillars out, of the hill giving way?—Not if we did not go too near the haulage-road.

20. *Mr. Proud.*] How many pillars should you leave next to the haulage-road to be safe?—With a haulage-road like this, that has to stand so many years, I would stop at least 3 chains away.

21. Have you many slips in the coal?—Yes; it is full of slips, more or less, what we call "backs."

22. Do they extend into the roof?—Some of them right up into the roof, and some not more than 2 ft. or 3 ft.

23. How do these rolls affect the character of the roof?—There are rolls all over the district.

24. Do they make the coal tender?—Yes.

25. What extent are they?—Sometimes about a chain or two. We have one in part of the Mine Creek haulage-road, where we pass through 30 chains of bad coal. That is going north and south and east and west.

26. How do the faults affect the coal?—We have some places where the coal is good right to the fault, and in other places it is bad for a chain away. Along our Dip section now we are running along a fault. Sometimes the coal is good right up to the fault, then again it will become bad for 3 or 4 chains, and it keeps changing like that.

27. Do you ever find any black damp in the mine?—Yes, we can get that frequently. When we approach these rolls, where there is a good deal of earthy matter, it often gives off black damp a good bit.

28. I suppose, owing to these faults and rolls, you do not make the pillars uniform?—We try to make the pillars uniform under all conditions.

29. *Mr. Lomas.*] What is the average number of men employed in bords where the machines are used, including those who hole, fill, set timber, and so on?—I can give you the number of people employed on the various jobs. We have twenty-one coal-miners; thirty-six fillers; twenty-one deputies, roadmen, and timber-men; seven shaftmen for repairing the mine; twenty-one on the rope-road, handling the coal; fourteen engine-men; twenty-three truckers and horse-drivers; three engineers.

30. What about the machine-men?—We have sixteen machine-men and eleven boys. In some instances we have two men at the machines, and ten men blasting down coal after the machines. That is the total number of men we have up above.

31. Can you give us the average output where the machines are used, and the average where miners are employed?—35 tons out of bords where the machines are, and two men will shift about 11 tons with picks per day.

32. *Mr. Proud.*] I suppose you do not consider your mine dry and dusty?—No, it is fairly damp. We have forty-five places in our mine at the present time. If we were working by hand-labour we should not get two-thirds of the output we are now getting. We can always produce from 700 to 750 tons a day in this area, whereas we should have to reduce it to 500 at the most if we had only miners employed. The coal is very erratic, and there are a small number of places in the mine where we can get a considerably larger output with the machines than by hand-labour.

33. Do you consider that the quicker a place is driven the safer it is?—I do not see any difference where the place is properly timbered and looked after. We have men doing nothing else than keeping the timber up and the place safe.

34. *Mr. Lomas.*] Do you consider it an advantage to have special men for that work?—I think so—it follows. We have been very free from accidents, and under this arrangement there is no need to tell a man twice to do a thing.

WESTPORT.

FRIDAY, 15TH FEBRUARY, 1901.

A DEPUTATION from the Westport Chamber of Commerce attended and made Statements.

Mr. Bayfeild: We represesent the Westport Chamber of Commerce, which is a thoroughly representative body, having a membership of between seventy and eighty members. We desire to state to the Commission our conviction that the time has arrived when further exploration of the Buller Coalfield should be undertaken. The Chamber has been considering the matter, and it has become evident to the members that the coal-export at present is totally inadequate, both for the requirements of the country, and the other demands made upon it. If asked in what direction we recommend the exploration to take place we desire to say that we do not commit ourselves to any particular district. We ask for an examination of the whole of the Buller Coalfields—that is to say, the coal areas beyond what is known as Buller Coal Reserve. It seems to us that there must be some little confusion in the minds of some people as to what is known as the Buller Coalfields Reserve as at present existing, and it is thought that what we term the Buller Coalfield Reserve has been fully explored before, but this is not so; we desire that an exploration should be made of what is known as the flat between here and Waimangaroa. After consulting with members this morning we have decided to refer to the desirability of boring in that flat, and we feel that it is not a matter which can be successfully undertaken by private enterprise, or is likely to be undertaken by private enterprise, but it is a work that we consider should rightly be undertaken by the Government. Private enterprise might assist in the matter, but not sufficient to insure absolute success. An effort has been made by certain people in this direction, but it has not proved of sufficient strength to warrant the work being undertaken. What I say has distinct reference to the flat country lying between the Mount Rochfort Range and the ocean, and when I mention the Buller Coalfields I refer to the whole of the coal measures in the Buller County. We do not confine ourselves to the Mackley country, because probably payable country may be found in the Blackwater district. Therefore we urge that the whole country should be explored. I think it has been agreed by the Westport Harbour Board that their engineer should go out and make an exploration of this country; at any rate, if that resolution has not been carried by the Board, notice of motion has been given of it. I venture the opinion that it is not expedient that the Harbour Board engineer should undertake this work, as it would take him away from his important duties of attending to the harbour, which always requires close supervision. I am quite convinced that this work in itself is worthy of being taken charge of by a distinct and separate officer quite apart from the Harbour Board, and having no other duties to attend to whatever. The work should be undertaken by an engineer and a practical coal-viewer, and it should not be undertaken in any hurried manner. In fact, my opinion is that it is a work that will take a year or more honestly and faithfully to do, and that a party of four men—an engineer, coal-viewer, and two assistants—will be required. We, as a Chamber, consider it should be undertaken by the Government as a work absolutely essential to meet the future requirements of the colony. In view of our being somewhat unprepared to offer evidence to the Commission, I have to be asked to be allowed to hand you a report of a paper which I read in Christchurch the other day on this coal question. I may state that the only exception I have in any way heard taken to my suggestions, either locally or outside this district, is the reference to a coal area being offered to the Admiralty, but that, of course, it would not be desirable perhaps to go into here. My paper is [see Exhibit 3].

Mr. T. Bailie: I might say that we have tried hard to get up a small company for the purpose of boring on the flats, and we desired to get 400 persons at £10 each. We thought we could make a start with that probably, and we approached the Government with a view to a subsidy, but they did not see their way to assist. We saw Mr. McGowan, but he did not give us any encouragement in that respect. That surprised us somewhat here, because we look upon the coal-mining industry, and the population that would be settled through a coal-mining company being started through our efforts, as almost of as much importance as any other industry in the colony. The Government has subsidised gold-mining, and given little attention to coal-mining; and we thought that if we could show that we were in earnest in this matter they would assist us, but they have not shown any desire to do so. Eighty-five shares have been taken up in a prospecting association for boring purposes, and we do not think that is enough to make a start with, as that would only give us £850. The Government sent Mr. McKay down here, and he gave us a report as to whether we should bore. It is the general impression that there is coal on the flats hereabout, and it would be an important thing for the colony, and particularly for Westport, if an extensive field were discovered. Apart from that, I agree with what Mr. Bayfeild has said—that there are other parts of the district where, if coal could be discovered, it would be worked very profitably. We have an idea in our heads that if we could get the railway extended up the Inangahua Valley to Reefton a good coalfield could be opened up in the Blackwater district, and it it is very desirable, for other reasons, that that railway connection should be made. There is, no doubt, coal in other parts of New Zealand, but in this district, as you know, we have the best of coal, and if we could get these coalfields open it would be a great advantage to the colony, as well as to the residents of this district. I think there are very strong reasons to urge in favour of the Government exploring this district; and, further, it is well known that we would be able to command a large export of coal were we able to supply it. For some time past some vessels have been coming here for coal, but the local demand has been so great that we have not been in a position to supply outside requirements. Sometimes a sailing-vessel has come here, and has been kept six weeks or two months before she has been able to get a cargo, and as a consequence owners are not likely to send their vessels again to this port. We cannot keep up with the present demand even in New Zealand. Mr. Cox, one of this deputation, knows a great deal about this part of the country, as he has been travelling a long time between Westport and Reefton,

and is acquainted with the coal-deposits between the two centres. I believe that if a railway were made between here and the Inangahua Valley it would go through a very good coal country up in the Blackwater district, and that is one reason why I think we should have this district explored.

Mr. J. Powell: I quite indorse what the previous speakers have said. I think it is very essential the Government should give us some support, in order that we may explore the flats. It is a national work, and the Government ought to undertake it, because, from what experts say, there should be plenty of coal there. As Mr. Bailie said, we formed a prospecting association here, but to start with less than £3,000 or £4,000 would be to court failure. We do not know how far we should have to bore—it might be perhaps 3,000 ft. or 4,000 ft.—and to make a failure of it would be a great calamity to the district. We suggest, therefore, that the Government should support us in the same way as it has done with regard to the goldfields. As to the surveying of the Buller Coal Reserve, I might say that it took Messrs. Denniston and Cooper four years to do what has been done. There were four of them altogether, and they worked at it all the time. There can be no doubt that there is a great deal of the reserve to be surveyed yet, as we do not know really what we have. One thing, however, is certain, and that is that we cannot supply the present demand for coal.

Mr. Bailie: Again, the coal is increasing in value, and if there is a further demand for coal it is bound to increase still more in value.

Mr. Powell: A large number of people believe there is a lot of coal between Mokihinui and Inangahua Junction, and if we got a railway connection between these points it would be a red line to Westport, so to speak.

Mr. Cox: I know there is coal in the Inangahua Valley in several places. An agitation has been going on here for some time past for a railway to join the Midland Railway-line at Reefton, and I have always had an idea, and have suggested it, that the shortest and best route to go in the Reefton direction is to pass through the Buller and round the back of Hawke's Craig, and thence up the valley of the Blackwater There would be one tunnel put up through the range into the Inangahua Valley, and you could get then almost in a straight line to Gallagher's and Larry's Creek. In going up Blackwater Valley there is some good coal sticking out 30 ft. thick, and I have not the slightest doubt that the whole of that district is coal-bearing, from the indications we have on the banks of the Buller, where the Buller has been heaved up at one time in that direction, and the water has found its way here to the west. The formations fall back into the Blackwater, and it is the same on the other side. There is a sandstone grit in very large blocks sticking up on the side of the range—as large as the side of this house—where coal has been disturbed. There is a great portion of the valley of the Blackwater that no man has ever crossed through, but men have followed up Blackwater River fossicking for gold, and nothing else. It does not seem to be very broken country, but is undulating, and not very high. Passing through into the Inangahua Valley you would cut another seam of coal in Stony Creek, which runs into the Inangahua River from the western side, nearly opposite the mouth of Larry's Creek. Then, in passing on towards the Reefton Goldfields, you will find seams of coal sticking up in the left-hand branch, some of which have been worked, and the coal carted into Reefton. You then come to the Murray Creek Hill, where the coal is on the top of the hills. There are some places where both coal and gold have been worked in the same claim, and quartz-reefs as well. It is a well-known coalfield, and there are several mines round Murray Creek which supply Reefton with coal. It is such a pleasant burning-coal that the owners actually find a market for it in Greymouth, where it is preferred to Greymouth coal; in fact, it is a beautiful coal, glassy and jet black, with scarcely any smoke in it. As regards this prospecting association, I have interested myself a great deal in it, and believe in it thoroughly. We have formed ourselves into this association, and most of us had paid our first instalment on the shares, when there seemed to be a damper put upon the affair. The Christmas holidays came on, and was followed by Her Majesty's death, and in consequence interest seemed to die, and a good few who put their names down as subscribers have not paid up. I understood there was some influence at work to make them change their minds. I think it would be a pity to disappoint those who have paid their money, and that we should make an effort to increase the number of shares, and endeavour to get the association registered as soon as we can, in order that we may start work. It is the opinion of almost every one in this district that there is a rich district of coal round here and Mokihinui, and further on between here and Charleston. If it is in one place it is likely to be in the other. It has either been a subsidence from Denniston, or an upheaval, and we believe the coal is there, and that it is to the mutual benefit of the people who have resided here for a great many years to put their hands into their pockets and assist in developing the field. There can be no doubt that it would benefit every one who has property in the district very much, while if we succeed it would be a great advantage to the country generally. I consider that the Government ought to give us assistance when we are willing to put down our money for prospecting purposes. The Coal-mines Act says nothing about prospecting areas for coal-mines, and if it were amended on the lines of the Gold-mines Act we could proceed to work and prospect a large area, and if it did not pay to develop we should not be called upon to pay rent for it. I think the law wants amending in that direction.

Mr. Bailie: That is one of the things we approached the Government on. Any one taking up coal-mining land has to pay 3s. an acre for it, and we do not see the justice of that provision when we want the money to bore only. I agree with Mr. Cox that the law requires amending in that direction.

Mr. Cox: I notice that our Minister of Mines is very hard on that point. He will not go beyond the letter of the law one iota. In replies we have had from him, he has not the same sympathy for the West Coast that he has for the Auckland Province.

The Chairman: Did he say anything about "shepherding"? That is the difficulty about granting of leases—that they are "shepherded," and not worked.

Mr. Cox: It is not for shepherding that we want the lease. We have put down some of our money already, and we are prepared to go on if we receive fair-play. £2 per share has been paid down, and there are many other shareholders who have not paid their money yet, but will pay if we can get the association registered so as to secure us.

Mr. Proud: How far have you found the Buller Coalfield to extend?

Mr. Cox: There is coal in Charleston, twenty miles from here. There is coal on the Steeples, where it has been brought up in blocks as much as 70 lb. by men fishing for crayfish. In trawling they have also fetched up any amount of coal under the Steeples, and there is a continuous run of coal from here to Collingwood. It goes under the ground from Mokihinui, and rises again at Collingwood, and on the Sherry River you see the indications of it. If there is coal in these flats it would be found for miles under the sea, because the formation of the bottom of the sea is coal for a long distance from here. On the line from the Steeples to Rocks Point there is a shallow basin, and it is considered that this is coal-bearing.

Mr. Lomas: Where does Mr. McKay suggest that you should bore for coal?

Mr. Bayfeild: In Waimangaroa. Sir James Hector made the same recommendation some twelve years ago, and gave me the plans of it. I do not regard Mr. McKay's report [see Exhibit 4] as altogether unsatisfactory, although some people do. I think that is practically all the evidence we have to lay before you as from the Chamber of Commerce, but I said when I gave my individual evidence before the Commission that there were one or two points to which I would like to refer. In the report of the Coalfields and Mines Committee there is in the examination of Mr. Hayes a question or two put. I have seen the gentleman who put the questions since, and he states that these questions were put under a misapprehension, and I think it is only fair that I should have an opportunity of getting in evidence on these points. The first is in respect to the engagement of Mr. Dixon. On page 18 of the report of the Committee question 170 states "You stated distinctly that Mr. Bayfeild asked Mr. Dixon to go there on behalf of the company with Mr. Tennent. This is a copy of the letter sent by Mr. Bayfeild to the Minister on the question?" The answer to that is, "I was only quoting Mr. Dixon's own statement." I now desire to say that I consider Mr. Dixon as absolutely correct when he told Mr. Hayes that I was the means of his (Mr. Dixon) going there. The questioner was under a misapprehension. I do not know in what way he got confused over the copy of my letter to the Minister, where I took exception to the statement by Mr. Tennent in reference to the report of Messrs. Shore, Alison, and Foster; and I want to say that Mr. Dixon's engagement there was distinctly the result of my own action. There is just one other matter I wish to refer to, at the request of Mr. Martin. As an old employé of the company, he has asked me to confirm the opinion which the company always had with regard to him. I can only say that of all the officials of the company, he was one of our best servants from the start. I have been specially requested to state that, and have pleasure in doing so, and I regard him as one of the most trustworthy servants the company had.

Mr. Bailie: I have also had, as one of the first directors of the company, a good deal to do with Mr. Martin, and also consider that he was one of the most trustworthy workmen we had in the company.

REEFTON.

SUNDAY, 17TH FEBRUARY, 1901.

W. G. COLLINGS attended and made a Statement.

Mr. Collings: A Railway Committee has been formed in this district with the object of urging the Government to carry what is known as the Midland Railway down the Inangahua Valley, and one of the inducements held out was that the deposits of coal in this district would afford remunerative traffic for the line. We asked the Government to send an expert here to report upon the outcrops and probable quantity and quality of the coal, but so far no one has been sent. Hearing to-night that the Commission on Coal-mines had arrived in the district, and were about to leave to-morrow morning, I suggested to Mr. Dawson the advisableness of endeavouring to get the members of our Railway Committee together in order that we might have a few words with you, and ascertain whether it is possible for you to go into the question of our coal-deposits.

1. *The Chairman.*] Will you indicate the localities where considerable coal-deposits have been found, or are likely from the surface indications to be found?—There are continuous outcrops within seven miles from here for about thirty miles down to the Buller River, twenty-five miles from here. This coal has been used for local purposes; but, of course, there is only a small population about Reefton, and they do not require much. The coal has been sent away in small trial shipments to Christchurch, Wellington, and West Coast towns, with very good results. For instance, the Hokitika people will give 7s. 6d. per ton more for our coal than for the Grey coal or Blackball coal. That will give you an idea of the quality of the coal in this district for household purposes. The seams outcropping at present are easily opened, and would be tapped by a branch line from the intended main line of railway along the Inangahua Valley, and the branch line would not require to be more than four or five miles to make the connection with the main line. At present, through the want of haulage, the small quantities we are sending down to Greymouth and elsewhere costs from 6s. to 7s. a ton to get to the railway-station. With a branch line of railway it would not cost more than 2s. a ton. As it is now, we do not send away any great quantity, because the demand in places like Hokitika and Greymouth is not large; but if we had haulage to enable us to trade

with a line of steamers to the various ports of New Zealand there is no doubt that a good coal area could be developed. So far, all we have worked exists in terraces. We have no shafts, and consequently the coal is easily procured. The line of coal is from Reefton to the left-hand branch of the Inangahua River and right down to the Landing. On this—northern—side of the river I suppose it is traceable for at least thirty miles. On the southern side there has been very little prospecting: there have been several large seams discovered, but they are not easily getatable. The County Council sent out two men to go over to Charleston, and at the foot of the ranges they found two seams—one 15 ft. thick and the other 20 ft., all good hard coal. That was at the foot of the ranges on this side; but the seams were in different parts, and would, I think, prove to be continuous. Further down, on Crown lands, there are known to exist other seams on the other side of the river; so that we may safely say that coal exists on both sides of the river. Approximately, the line would follow near the river on the other side, and the railway would give access to all these seams. In a field of that extent the quality, of course, would vary, and there might be coal of higher steaming qualities. The coal we have been using has been used in all the steam-batteries here.

2. Have you found any truly bituminous coal?—No; but to give you an idea of the quality of our coal I may say that I was managing a quartz-mining company which had a ten-head battery, two berdans, and a pulsometer, and we use the refuse of a coal-mine to crush with, the plant going for a week continuously working twenty-four hours a day, and I suppose that would have developed from 20- to 25-horse power. 12 tons of slack did the whole work for the week. As to the demand for our coal, Mr. Steele, who is connected with the trade, will give you an idea of that. A small quantity has been sent to Christchurch, but with the cost of bagging added to the other high charges it has not proved profitable to send it away. We should like, if it is possible, for some person to come here on behalf of the Government to visit and inspect the seams. We would show him what we could, and would like the Government to have the Crown lands prospected. There would follow, no doubt, applications for large areas from people desirous of making money out of it, but we would rather see the coal country get into the hands of people able to develop it. It is the general opinion that the flat land traversed before reaching Reefton from the south contains coal, and we should like the Government to prove it. The land is chiefly in the hands of the Government, and could be worked to the benefit of the State before it gets sold to private people. I believe we have the largest seam of coal here that is to be found on the West Coast, but so long as the Westport Coal Company is in operation there may not be a great demand for it. At the same time that company's seams will be worked out in time, and then no doubt we shall have our turn.

3. *Mr. Proud.*] What is the thickness of the seam you speak of?—20 ft.

4. Are there any beds of fireclay that could be utilised?—Yes. I consider it is very advisable that the railway should be made to assist in the development of the industry. At the same time I do not think it would be to the advantage of the colony that small areas should be taken up on lease by persons intending to hold them until they can form companies. We should like to see these coal-measures developed in our own lifetime, and not left to future generations. The industry would largely increase the profits on the main line of railway, for it has been proved that, mixed with the Brunner or Blackball coal in the proportion of 70 to 30 per cent., it makes a splendid household coal.

JOSEPH STEELE attended and made a Statement.

Mr. Steele: With the present facilities for working coal in this district it cannot be sold for less than 10s. per ton at the pit's mouth, paying decent wages to those who are engaged. The coal is sold in Reefton at £1 per ton. It costs 7s. a ton to get it carted to the railway-station, and for haulage it costs 5s. 1d. to Greymouth and 6s. 8d. to Hokitika. I could have got orders for 100 tons a week two years ago between Greymouth and Hokitika, but there were no carters here to cart it. Blackball and Brunner coal was selling at 18s. a ton in Greymouth; but the people were freely giving £1 10s. a ton for Reefton coal, because it was very much cleaner. That was in Greymouth, but in Hokitika they were doing the same thing. I met a gentleman from Christchurch some time ago, and he asked me to send him over 10 tons. I sent it over, but the steamers will not take in less than 50-ton lots unless it is bagged, and the bagging costs 4s. The cost of the coal I forwarded to Christchurch was: 10s. per ton at the pit's mouth; 7s. for cartage to the railway-station; 4s. for bags; haulage to Greymouth, 5s. 1d.; freight to Lyttelton, 10s.; railway haulage from Lyttelton to Christchurch, including wharfage, 3s. 6d.: total, £1 19s. 7d. at the Christchurch Railway-station. The gentlemen I refer to is not in the coal trade, but he told us to send almost as much more as we could. But it is impossible to send it away in 50-ton lots with our present facilities. We cannot get more than four horses to cart it, and two trips a day would be as much as they could do. There would be a big export of coal from this district if the railway were extended down the valley as far as Burke's Creek. The distance would be about four miles down to the creek. The bridge crossing the river would be a difficulty to overcome. The general opinion is that the coal on the hills dips into the flat, which means the sinking of a shaft; and what we want more than anything else is boring operations in the flat. Sir James Hector, I believe, gave it as his opinion twenty-five or thirty years ago that the whole bed of this Inangahua Valley contained coal. The coal is outcropping, and the lowest tunnel is on a level with the creek. I do not think there is more than from 20 ft. to 30 ft. of surface on the coal. There is a fire about two miles beyond Burke's Creek, in a northerly direction, on the outcrop, which I believe £100 would put out. That fire has been burning for the last ten or twelve years. If the railway was extended about five or ten miles down the Inangahua Valley, I believe capital would easily be found to properly develop those coalfields.

HENRY BETTS, County Chairman, attended and made a Statement.

Mr. Betts: I strongly recommend that the attention of the Government be drawn to the necessity for boring operations in this district. So far the coal that can actually be seen is on the sidelings and spur-tops, but undoubtedly there are indications that the coal extends into the flats. That, however, has to be proved, and we shall never know until prospecting operations have been carried on. It would be better for the State to try and find out whether there are large deposits of coal or not, and if there are I think they should be worked by the State.

E. W. BUTLER attended and made a Statement.

Mr. Butler: I am a mining engineer, and have been a resident of this district for twenty-five years. I am conversant with all the coal-measures in the district. They start out near the Big River, and they are in a nearly continuous line from Big River to Boatman's. That would be about thirty miles, as the crow flies, that I have surveyed myself. The best coal that I have seen is up at Murray Creek, about four miles from here. The seam is from 12 ft. to 20 ft. thick, and it is a very large field; in fact, its extent is not known yet. It has probably been worked ever since I have been here, but the cost of transit is very heavy, because the road is very severe, and the haulage has to be done by horses. The slack from this mine is supplying the engines at the Consolidated Mines, at a cost, I believe, of 5s. 9d. per ton. At any rate, that was the price, although it may be 7s. 6d. now. These measures continue right through the burning coal-seam and on to Boatman's, which would be a distance continuously of about fifteen miles. Nothing has been done in the way of prospecting beyond Boatman's in the mines worked, but there is a continuous seam right away for forty miles to my knowledge. The seam at Burke's Creek is a very large one, and on the other side of the hill Stony Batter has been sluiced for mining purposes, and the coal is there bared for half a mile, and seems to be a very good seam. Certainly, at Burke's Creek the seam runs right into the flat, according to the indications.

BRUNNER.

TUESDAY, 19TH FEBRUARY, 1901.

ROBERT ALISON examined.

1. *The Chairman.*] You are general local manager for the Greymouth-Point Elizabeth Coal Company?—Yes.
2. You are in charge of the works?—I am in charge of everything.
3. The registered office of the company is in Wellington?—Yes, in the Government Insurance Buildings.
4. And the secretary of the company is?—Mr. E. G. Pilcher.
5. Can you tell me the genesis of the company?—No.
6. You do not know by whom the ground was originally taken up?—No.
7. The mine-workings are about how many years old?—About thirty-six.
8. The mine is situated on the northern bank of the Grey River?—Yes.
9. And is worked by drives?—Yes; at present by three drives.
10. And it consists of a lease, I suppose, of how many acres?—About 1,280, 360 of which has been worked out.
11. What proportion of the ground has been gone over?—A very small proportion.
12. What are the prospects of the portions that have been touched?—The prospects are not too good. The area that has been worked is bounded on all sides either by the cliffs or the thinning-out of the coal.
13. So far as it appears at present, the coal-bearing portion of the area has been gone over?—Yes; but there are indications of a coal-seam at the back, but no attempts have been made to go over them. That is in the Brunner lease.
14. The mine has put out how many tons?—For the total time it has been working up to the end of 1899, 1,594,000 tons.
15. And in the workings that are now available in the taking-out of pillars what proportion of coal do you expect to get?—We cannot put an estimate on it. We cannot get round those pillars, and what coal there is we do not know. We get all the pillars out, practically speaking.
16. Will it amount to a million tons?—No; it would be near about a couple of hundred thousand tons out of the pillars that are left standing.
17. After the 200,000 tons have been taken out I suppose more prospecting will have to be done?—The coal will have to be found.
18. How long will it take to get that 200,000 tons out?—Perhaps three years.
19. What is your present output?—About 120,000 or 130,000 tons per annum.
20. In round numbers, what is about the value of the machinery about the mine, not reckoning the timbering, and so on?—The machinery alone would be worth about £2,500.
21. It has not been an expensive mine, then, to open up?—No, I would not consider it so.
22. Do you know what the capital of the company is?—No.
23. How many men are you employing?—For the coal-mining, about two hundred and fifty.
24. And you pay fortnightly?—Yes.
25. What does it amount to?—£1,300 or £1,400.
26. Do you pay the men chiefly by piece or wages?—Chiefly by piece.
27. What is the scale for hewers and coal-getters?—2s. a ton is the average wage.
28. Can you say what they are able to make at that rate?—I think, 13s. or 14s. is the average wage for eight hours, bank to bank.

29. What do you give those you pay by the day?—We work under an agreement with the Miners' Union. We pay our deputies 11s. 6d., roadmen 10s. 6d., and outside hands 9s. per day.
30. Is the mine well ventilated?—The Dip Mine is.
31. By means of what?—A Schiele fan.
32. And the Rise?—That is natural ventilation.
33. Is it well ventilated?—Occasionally, on very hot days, it is a little dull; but that is always the fault of natural ventilation. On the whole, it is good.
34. I suppose the Rise Mine has been worked on the pillar-and-bord system?—We are taking out the pillars now.
35. About how much of the mine is now under water in the Dip?—You may say it is all under water—the greater portion of it.
36. Do you know what the haulage-rate is from here to Greymouth?—It is 1s. 10d. per ton, which includes 2d. toll on the bridge.
37. Do you know what the coal sells for at the pit's mouth?—I do not know what the shipping prices are.
38. You do not know what terms are made with the shipping companies?—No. Mr. Pilcher will be able to tell you that.
39. Is the coal hard?—No; it is soft.
40. Is there a large proportion of small coal in it?—About 55 to 60 per cent.
41. Does it all sell outside Greymouth?—No; we have to put a certain amount into the river every year—from 15 to 20 per cent.
42. How often is the mine inspected by the Government Inspector?—I think, on an average about once in two months. That is independent of his coming on account of an accident or anything like that.
43. Have you found any difficulties at all in working to his requirements?—No.
44. Have you always met his requirements?—Yes. We have never had any complaints from him to meet.
45. He works under the Coal-mines Act, and you find no difficulty in complying with the terms of the Act?—No.
46. And there is nothing that you know of which requires amendment?—I think amendment is required with regard to the position of the manager of a mine. At Home you have the right to put up two names as mine-manager—that is, the local general mine-manager and the man who is actually doing the work. If any of my men want to go away for a week I cannot, without the permission of the Inspector of Mines, take up the permission they fill; and, as mine-manager, I am not complying with the terms of the Act, because you cannot expect the head man to go round the mine every day. At present I am not responsible to the Inspector, but only to my employers.
47. *Mr. Proud.*] You think the duties and responsibilities of the mining engineer and mine-manager should be clearly defined by Act of Parliament?—Yes.
48. How many tons of small coal have you tipped into the river?—128,210 tons was the gross output of coal for the year 1898–99, and 25,600 tons was put into the river. For 1899–1900 it was 142,900 as the gross output, and 20,360 tons of small coal went into the river.
49. You say that part of the coal is lost owing to the water rising: was it wise to stop pumping the water?—It was compulsory to stop pumping, because the bed-plate of the pump was broken into four pieces, and it would have taken a month before it could be repaired and put in a position for work again. There was also a difficulty with the motor through the creep going on, which required the motor to be taken to pieces and new foundations put in.
50. In any dispute you might have with the Inspector is there not a provision for arbitration?—I never had any case, but I believe there is provision for that in the Act.

BLACKBALL.

Wednesday, 20th February, 1901.

Joseph Scott examined.

1. *The Chairman.*] You are?—General manager of the Blackball Coal Company (Limited).
2. The registered office is where?—237, High Street, Christchurch.
3. What is the secretary's name?—A. A. McKellar.
4. You have been in charge for about how long?—About six years and a half.
5. Did you open the mine?—No; I succeeded Mr. Lindop.
6. The mine has been working for how long?—About seven years and a half.
7. It comprises how many acres?—About 1,800 acres.
8. Of which only about how many acres have been worked?—Between 60 and 70 acres.
9. The ground is situated on the eastern bank of the Grey River, about three miles in a straight line from the Ngahere Railway-station?—Yes.
10. The coal is carried by an aerial tramway three miles in length?—Yes.
11. With running buckets containing about 8 cwt.?—Yes.
12. Putting out 250 tons per day?—Yes, in a day of eight hours. The property is freehold, belonging to Sir Edwyn Dawes, of London.
13. This aerial tramway is worked by a 20-horse-power steam-engine?—Yes.
14. And the value of the outside works, exclusive of the travelling-roads and the timber in the mine, in round numbers amounts to about how much?—£25,000. That is what we assess it at.
15. You are now putting out at the rate of 250 tons per day?—Yes. Previous to the fire we were putting out 500 tons a day with two shifts—that is, prior to December last. Since December we have only been working eight hours.

16. Do you anticipate being able to revert to the two shifts?—Yes, in about a fortnight's time.

17. As far as the output at the mine-mouth is concerned, what do you think you can work up to?—In eight hours we could work up to double what we now do. That would be 500 tons for eight hours and 1,000 tons for sixteen hours.

18. You cannot work three shifts a day, can you?—No, not with any profit.

19. Have you any idea of what the total output has been from the beginning?—Up to the end of November it was 356,563 tons.

20. Is there plenty of coal in view?—Yes.

21. Are you able to say what work there is before you?—We can safely say we have ten years' work before us. We have proved it by boring.

22. How do you describe the coal?—Bituminous.

23. Chiefly used for what?—Steam and household purposes.

24. How would you distinguish it from other coal—say, the Grey Valley coal?—I believe there is more bitumen in our coal than in the Grey coal, and also more sulphur.

25. How does it compare with the Westport coal?—It is not so good, I think, for general purposes, such as gas-making, and so on; but for steam purposes it is equal to Westport.

26. Where does the inferiority lie?—It contains a great percentage of sulphur.

27. And as to hardness?—That is equal to Westport.

28. How many hands do you employ altogether?—About eighty at present, but when we work the double shift you may say there are practically double that number.

29. How are they divided?—There are about thirty-six on the coal now, twelve truckers, and the rest are labourers.

30. The coal-getters receive 2s. 3d. per ton?—Yes; and their average wages are about 12s. 3d. per day. They have averaged that for a year past. The wages-men are paid at the rate of 8s. per day.

31. You do not use the "iron man"?—No.

32. Is everything working satisfactorily with the workmen?—Yes; we have had no trouble.

33. How is the mine ventilated?—By means of a furnace at the outcrop in Blackball Creek, drawing the air through the main tunnel and giving an average of 16,000 cubic feet of air per minute.

34. Up to December last had there been any accidents in the mine?—Yes; there were two fatal accidents prior to that—one due to a fall of coal from the face. That was in May or June last.

35. What was the name of the man who was killed?—Henry Slade.

36. What was he doing?—Working at the face. He was drilling his hole prior to firing a shot when a piece of coal fell from the face.

37. Do you know whether he was using a sprag?—No. That was why the accident occurred.

38. What was the verdict at the inquest?—Accidental death, with no blame attributed to any one.

39. What about the other accident?—That was to Roger Stevenson.

40. When?—About August last.

41. What was that due to?—The jig-prop breaking away at the bottom. That is a vertical prop with a chain travelling round it. He had been filling his coal, and had sent his full tub away, when the prop carried away at the foot and struck him on the back of his head. He died from the effects two days afterwards.

42. What was the verdict in that case?—The same as in the former.

43. Were those the only serious accidents up to that time?—Yes.

44. The fire in the mine occurred in December?—It was first found on the 30th November.

45. Will you tell us, shortly, about it?—The discovery of the fire was occasioned by Green, the man who was lost, not turning up at the furnace to relieve his mate, Sneddon, who reported his absence to Mr. Leitch, the mine-manager. Mr. Leitch and a party of men immediately went through the travelling-way by which Green would go to the furnace, and they discovered the fumes issuing from the old workings. It was the carbon-monoxide gas in the mine which they could not penetrate. They discovered the gas before they found Green. Through the gas they knew that fire was existing somewhere in the mine in the old workings. Bratticing was immediately taken in to carry fresh air through, but they had to desist on account of the gases driving them back. We then decided to change the ventilation by means of a steam-jet in the tunnel, which was done, and Green's body was recovered on Sunday night, 2nd December.

46. You could not say how long he had been dead?—From my own personal opinion, I do not think he would live five minutes in the gas. It would be almost instantaneous when he came in contact with the gas.

47. Then what was done?—After recovering the body we found we could not put the fire out without flooding the mine. We had located the fire by means of exploration. We found it to be between Nos. 4 and 5 headings off the bottom level, but we could not get within 200 yards of it. We then determined to flood the mine, and effected this by building a brick dam in the main tunnel and bringing in water from Coal Creek by means of fluming. This operation caused the mine to be idle for two months. We got in again on the 31st January, and at this date the mine has only been working some three weeks.

48. Did you find it very much damaged?—Where the fire had occurred there was considerable damage owing to the timber being burned and letting the roof down.

49. In your opinion, is the fire extinguished now?—Yes.

50. But it will require to be watched?—Yes.

51. What haulage-rate have you to pay on the Government line from Ngahere to Greymouth?—2s. 6d. per ton.

52. What would be a fair rate of haulage to calculate for your aerial tramway?—About 4½d. per ton. That is about the average.

53. You pay no royalty?—Yes; 3d. per ton to Sir Edwyn Dawes, but none to the Crown.

54. Who owns the freehold?—Sir Edwin Sandys Dawes, who purchased it from the Midland Railway Company, which originally owned it. They had leased it to the Blackball Company.

55. What royalty did you pay to the Midland Railway Company?—6d. per ton.

56. When did the change in ownership take place?—Two years ago.

57. Did Sir Edwyn Dawes buy it two years ago?—Yes. I have been his agent for the estate two years now.

58. What does he own?—He owns the whole of the three blocks known as the Blackball coal lease, including the township.

59. Do you anticipate the expenditure of further capital in any large quantity upon this mine?—I believe they will be expending £2,000 or £3,000 shortly in the erection of a fan and other works.

60. Is the mine at the present time fit and comfortable for the men to work in?—Yes.

61. The part where the fire was is rather warm, is it not?—Yes; but that is in the old workings, and there are no men working there.

62. There has been no recent change in the ownership of the property?—Not within the last two years. Sir Edwyn Dawes is practically the owner, but the shares are held chiefly, from what I can learn, by the New Zealand Shipping Company, of which Sir Edwyn Dawes is chairman; but he himself bought the freehold.

63. I suppose his 3d. a ton royalty is a matter of account-keeping?—Yes.

64. Do you find a ready sale for the coal?—Yes; the demand is greater than the supply.

65. What do you reckon the value of the coal at at Ngahere?—The prices we charge are 8s. for slack—that is, unscreened nuts—and 11s. a ton for unscreened coal, and 15s. for screened coal.

66. How long have you been able to get those prices?—We have been charging those prices for the last three years.

67. How is it that we can get your coal at £1 7s. a ton in Wellington—I am speaking of prices before the recent rise—and we have to pay £1 18s. for Westport coal?—Simply because we have our own boats running.

68. Who carries your coal chiefly?—The Blackball Coal Company's boats, of which there are three—the "Dingadee," "Paeroa," and the "Petone."

GREYMOUTH.

THURSDAY, 21ST FEBRUARY, 1901.

A DEPUTATION from the West Coast Trades and Labour Council attended and made Statements.

Mr. H. Betts: The Trades and Labour Council, at meetings recently held, have passed certain resolutions which we have been deputed to bring before the Commission.

Mr. J. Foster: I may state that when the Commission sat at Denniston I stated that when the Commission reached Greymouth the Council would have some resolutions to put before it. In the past, under the old system of working by hand-labour, the bords were opened 12 ft. wide, and driven 3 yards in, before the miner was allowed to open them out, and the miners got so-much a yard for that work. When in 3 yards the miner opens out his bord to the full width, and it was the practice to keep the roof solid opposite each bord; but the system now adopted with the machines is entirely new. If a bord is driven 18 ft. wide it is started at 18 ft., and consequently there is a very large space at the end of the bords. We think if the old system was returned to, and the bords made the narrower size, it would be beneficial to the ground by way of strengthening it until the pillars were taken out, and that more coal would be secured. With regard to the pillar-workings, the pillars should not be allowed to stand too long. I was very pleased to hear the evidence given by a gentleman on Denniston Hill on this point, and I think he showed clearly to the Commission that by extracting the pillars while the ground was good he was saving all the coal within 10 per cent. With regard to ventilation in the mines, the Council urge that the mine-owners should be compelled to use a fan for ventilation purposes immediately they start to work, and not trust to natural ventilation, which can never be relied on. In reference to coal-cutting, the Council do not approve of the places being taken out so high. When a miner cuts his own coal he has a certain amount of power over his roof, and knows how high the coal will be shot down. He cuts 6 ft. or 7 ft. high, and can keep his roof within a certain height. When the Coal-pit Heath Mine was put on pillars the coal was extracted to a height of 18 ft., and the bords were 18 ft. in, and after a short time when they came to extract the pillars they could not find where the bords were. The fireclay below the pillars had been pressed forward and filled the bords up. If the coal were not extracted so high there would not be so much damage done to the roof. In that mine the pillars came down like a wedge and the ground had to follow, and the consequence was that there were thousands of tons of coal lost through it. It is a question for consideration whether it would not pay to reopen the Coal-pit Heath Mine, as it is the opinion of many that large quantities of coal are left in it. If the bords and stentons in the mines were not taken out so wide and high as they sometimes are a great deal more coal could be obtained when the pillars came to be extracted. In the Grey district the pillars are made some 50 yards long, while the pillars at Denniston are only 16 yards square, so that

there is a vast deal of difference between the two systems of working. It is a recognised fact among coal-miners that the stronger the pillars are left the more beneficial it is when the time comes to extract them. On this point the Council thinks that an amendment of the Act is required to compel mine-owners to extract the pillars within a certain period, and that the pillars should not be allowed to stand year after year. The Commissioners have seen the mass of timber used in bords and stentons, and I can assure them that once the bord is left the timber is not renewed before the pillars are taken out, and often long before this is done the whole place collapses. To my knowledge, pillars have been allowed to be split by the machines and left standing in stumps. The result is that when they go to take the stumps out the country begins to work, and the whole place is buried. Any one with a knowledge of mining knows that if the pillar is not strong enough to break exactly where it is wanted there is danger of a large amount of coal being buried.

1. *Mr. Lomas.*] Do the Council recommend that the pillars shall be taken out irrespective of risk to the mine?—Certainly not.

2. *Mr. Proud.*] What you meant was that the places should be driven to the boundary or some division, and the pillars worked homewards?—Yes.

3. Is that not being done now in all the mines on the Coast?—All the pillars we have done have been worked back, with one or two exceptions. There was one place in the Lady Glasgow section that was not worked in that way. All the pillars were split and left standing there, and immediately the men went to extract them they lost all their stumps.

4. *Mr. Lomas.*] You do not mean to say they started to take out the pillars in front of the stumps?—No. It was on the left-hand side of the roadway coming out of the mouth of the mine. I suppose they were short of coal, and for that reason put the men to work in that place.

5. Have you ever known them to split pillars where they could get them out with safety?—Certainly. After a pillar is split, instead of being 16 ft. square, there is perhaps 10 ft. to 16 ft. taken out of it at the side, and surely that weakens it.

6. May not the pillar be in broken ground, and involve a certain amount of danger in keeping up the roof?—There may be in some cases, but if the pillars were left higher and bigger the miner could lift them without splitting them.

7. *Mr. Proud.*] You recommend that the pillars should be taken off in lifts?—Yes; and that the pillars should not be less than 42 yards long. I do not think the ground should be taken out so high or so wide. 16 ft. to 18 ft. is a reasonable width, and 7 ft. or 8 ft. a reasonable height; but now they are allowed to go as high as 14ft., 16 ft., and 18 ft. Another question which has occupied the attention of the Council is the haulage-rates on the railway. We think there should be a uniform rate for all minerals going into the seaport towns. The haulage-rate between Granity and Denniston and Westport will average something like 2s. 3d., while from Mokihinui to Westport it is 3s. 3d. It is therefore very hard for a struggling company like that at Mokihinui to compete with a handicap of 1s. or 1s. 3d. a ton; and I am sure the Mokihinui people would be very glad if they could make a profit of 1s. a ton on delivery to the market. We have passed a resolution on the subject, which we hope the Government will seriously consider. We do not stipulate that the rate should apply only to one place, but that it should extend over the whole colony. We also desire the Government to subsidise those who are prepared to prospect for coal. It would be a great boon to the mining community and would encourage the investment of capital. There is no doubt in our minds that there are grand coalfields in the low country as well as on the tops of the hills, but there are very few people in these districts who can stand the expense of prospecting without assistance. The Council is also of opinion that where drainage can be effected it should be done, and if the expense involved is greater than the mine-owners can bear the Government should subsidise them where necessary. If drainage were resorted to on the hills it would be of great advantage to the miner and every one else concerned. The Council has passed a resolution asking that the Act be amended to provide that air shall be conducted to within 15 ft. of all working-faces. If that were done we think there would be no complaints about bad air. Complaint is also made as to the use of compressed air. Since the Commission sat at Denniston Hill I have found out that when the boy Brown fainted it was in consequence of the air being bad, and that it was compressed air that was being used there at the time. It had been turned off from the cock, and every one knows that if a place is standing with no ventilation or return air noxious gases will accumulate. If this system of ventilation is to be continued black damp or white damp is bound to lie about. The ventilation is continuous when conducted by a fan; but if compressed air is used, which is dependent on machinery, it will only be available when they can spare it, and then there will not be enough. I do not say it would be detrimental if it was continually on, but if it is stopped for ten or twelve hours and then turned on again it is not fit for the men. It appears that the lad Brown had to go up to the place and turn the cock on, and consequently he was sick. You were told that he had a fit, but the real cause was what I have stated. We have passed a resolution that the brattice shall be within 15 ft. of the working-faces, and we hope the Commission will help us to get that provided for in the statute, as we consider it to be an improvement, and be beneficial to both the men and the owners.

Mr. Betts: I wish to emphasize what Mr. Foster has said with regard to developing the coalfields of this district. There can be no doubt that there are large deposits of coal in the flats in the Grey Valley, but they are beyond the power of local enterprise to develop. Personally, I would not like to see our coalfields in the hands of large companies. If the State spends money in prospecting and proving the existence of large coalfields, I think it should go a step further, and work them for the benefit of the State. I believe that money spent in this direction would be well spent. With regard to the use of fans for ventilation purposes in mines, I think legislation should be framed to compel the owners of all mines—gold and coal—to adopt this method of ventilation. It would improve the conditions under which the miner works, and indirectly benefit the owner.

In connection with the haulage-rates, I think every encouragement should be given to the companies that develop country away back from the seaports. I see no sound reason why a company acquiring a coal area close to a seaport should be placed in a better position, so far as the haulage of the mineral is concerned, than a company whose mine is a longer distance away. It is the wish of the labour organizations on the West Coast, which are chiefly concerned in mining, that the Government should assist the development of the coalfields as far as they possibly can, not only by expending money in developing the fields, but also by granting concessions to mine-owners whose mines are situated long distances from the ports.

Mr. H. Coppersmith: I am a coal-miner in the Brunner Mine. I believe the Commission were round the mine a couple of days ago and saw the condition of it. We have practically no solid coal, and are on the down-grade and working the pillars. So far as I know, I think the management are doing their best to get all the coal out of the mine. Years ago a large amount of coal was left, and they are now prospecting in a place called Ladysmith where it was left behind. In a district called the Transvaal they are also prospecting. With regard to the ventilation, as Mr. Foster stated, we have passed a resolution urging the amendment of the Act to provide for the compulsory use of fans. The ventilation has been by natural means, and at times the air is very poor. If a fan were erected it would be of great benefit to both the men and the owners. The management is doing all in their power to get the best air they can, but we consider the Act is at fault in this particular. The air is drawn in the Dip portion by a fan in the Rise. It travels in one direction early in the morning, and later on it will turn and go backward and forward, so that the miners do not get their proper amount of air. Sometimes it is what we call "heavy," which means that we have practically no air at all inside. The air is not pure at all, and is mixed with different gases. With regard to our method of taking out the pillars, they are 50 yards distant, and we do not split them unless they are over a certain thickness, and our method is to take them out in lifts. The question of prospecting has been before the Brunner miners, and, as the mine is on the down-grade, we should like the Government to take that work in hand and work a mine of their own. We think if a bore or two were put down in the Dobson district a good seam of workable coal would be found which we consider would last for centuries. An effort was made to put a bore down by a local company assisted by the Harbour Board, but they stopped when they had gone a certain distance—I think, some two hundred odd feet. The people here would like to see the bore put down to double that distance, because if coal was found it could be easily and profitably worked, as it is so close to the railway and port. There is another mine in the district at Wallsend, which is in the hands of Joseph Taylor. There are not only pillars there, but good solid coal. There is a dip going down to about Rocky Island, and the mine has been lying dormant for many years. It is not considered right that mines should be allowed to lie idle, and many think the Government should compel the owners to either work them or give them up. I believe two or three gentlemen have applied for the lease of Tyneside, but I do not know whether they intend to work it or not.

8. *Mr. Proud.*] Were there many pillars left in the Brunner Mine, Mr. Coppersmith?—We believe there is a goodly amount of coal in the centre section, which is called Ladysmith. It was so named because it was opened about the time Ladysmith was relieved.

9. Was much coal left in the Coal-pit Heath Mine?—Yes; and I say that the Coal-pit Heath Mine has been wretchedly managed from the first; it was badly worked right from the very beginning. It was the earlier companies that ruined it.

10. *Mr. Lomas.*] Did they ever drive the dip to the boundary of their lease?—No. There was a downthrow fault there.

11. Was it the same fault that they struck in the right-hand side of Wallsend?—It was considered to be the same fault.

12. *Mr. Proud.*] It is drowned out now?—Yes, but I believe they could get down as far as the old shaft.

13. Do you think part of the pillars could be recovered yet?—I believe some of the Rise pillars could be got out. Of course, there would be considerable expense in keeping the water down, but it is the opinion of most men that they could do that.

ROBERT RUSSELL, Mayor of Brunner, attended and made a Statement.

Mr. Russell: Personally, I think the whole mode of working each of the mines is wrong right from the commencement. Instead of starting the colliery at Brunner, they should have started at Rocky Island, a little over a mile away. My reason for thinking so is that the seam will average a dip of about 1 in 5, and they commenced right at the outcrop. As they worked out the coal the surface-water was brought down, and when they started to work down lower to the dip they had a further distance to pump. The Brunner and the Coal-pit Heath Mines have both been spoilt through the management being in too big a hurry to get results. I think, in no mine in New Zealand should they be allowed to take out a single pillar until they have reached the boundary of their lease. I should be in favour of the Staffordshire method of mining coal—going right to the boundary—for by this method you lose no coal. Here they have broken out the pillars before getting any depth and brought the surface-water in, and they have had to contend with it ever since. But the Brunner mines have been killed by several things besides that. They have been killed by certain influences amounting to a monopoly, or something of that kind. The Westport Coal Company, in my opinion, has killed the Brunner Colliery. This company began some time ago by buying into the Wallsend Colliery. They worked it a few months only; yet to-day it is a colliery fit to put out 1,000 tons a week from the coal in sight if they will put in the machinery. There is a level on the east side which is standing on 12 ft. of splendid coal—equal to any coal south of the line. It is driven in from the shaft about 10 chains. The upthrow is there, but it is not enough to hide the coal. When they got over the upthrow they

found 10 ft. or 12 ft. height of splendid coal. The west side is in some 12 or 14 chains. It is standing on a fault, and that fault has never been touched. At any rate, there is not 6 ft. put through that fault. The inclines on each of these levels are up some 14 chains. On the west side they are in a fault, and on the east side they are in bad coal. On the west side half the bords are near the fault, and the other half are standing on solid. On the east side there are a lot of bords fit to work, and can be started immediately. The dip is driven down some 20 chains about 100 ft. on the west side of the shaft. That leaves the 20 chains from the shaft on the west side down the dip standing on solid coal. The dip is also on a fault. There has never been any attempt to prove any of these faults. The level going to the west we expect is an upthrow—that is to say, Taylorville Flat, where we expect to find an extensive field. That is the position of the Wallsend Mine to-day, and I think it is a shame to the district that it is not working. The Westport Company also bought into the Tyneside Mine. That is another colliery on a small scale. Very little coal has been got out of it. It is standing on good coal, and the fact that some one has applied for a lease of it proves that it is considered to be payable coal. That was simply closed down by the Westport Coal Company when it was bought. The Coal-pit Heath was the next mine which engaged their attention. They bought that out, with a similar result—it was closed down. The next thing that attracted their attention was the Brunner Mine. The Westport Coal Company bought, I think, about half of that. They worked it for some time, and then closed down the most part of it. The residents were led to understand some five years ago that it could not possibly last more than eighteen months, with an output of 1,500 tons a week. Since that time we have not only put out 1,500 tons a week, but have raised it to 2,000 and sometimes to 3,000 tons, and are going ahead yet with at least eighteen months' more coal in sight. The Brunner has met with the same result as Coal-pit Heath—it has been robbed. The coal has been taken out where it should not have been touched, and the fact is that we are now getting nearly solid coal in parts that were abandoned. I do not know exactly who is to blame—whether it is the management or the Government Inspector—but it is one of those two I should like to blame for it. I should like to admit at the same time that we can sell coal to-day that we could not possibly sell before. I must say that in all fairness to the parties concerned, because the market to-day is better. In my opinion, the Brunner would have been in a flourishing condition to-day if either the Government or the management of the colliery had done their duty. The incidence of taxation on coal-mines is, I consider, altogether wrong. They ought to be taxed on the area, so that if they did not take the coal out they would have to pay for it. In that case the lessees would be compelled to produce more coal.

1. *Mr. Proud.*] You mean so-much per foot per acre?—Yes. My opinion is that the Brunner Mine has been closed for the benefit of another place. I do not so much blame the people concerned in it, but I blame the Government for allowing it.

2. *Mr. Lomas.*] You would only charge for the coal-bearing area of the land taken?—Yes. There is another thing I would like to mention as needing some alteration: When I wanted to apply to get a small lease I was unable to get a plan of the district. I always understood before that the Government kept plans of all such places.

3. *Mr. Proud.*] There are several recommendations in the report of the Brunner Commission: do you agree with them?—I have not seen the report. In connection with the boring in the Brunner district, I should like to say that the strata underlying the Brunner seam is a conglomerate, and if you go down to Coal Creek you will find five workable seams under that part. We want the Government, or Harbour Board, or anybody else, to bore under this district, for if there are five seams at Seven-mile Creek there is no reason to suppose there are not the same under Brunner. We have bored 264 ft. in the Brunner; it is still in coal-bearing country, and all the practical men expect to find coal underneath the Brunner seam, but owing to the position of affairs the present company have not been able to go further. They suddenly stopped it on account of some arrangement with the debenture-holders. We nearly had it going again when it was stopped. The Harbour Board voted £100 for it, and only £50 was expended. I do not blame the Harbour Board in any way for it, because it was the company that stopped operations. If the seam, when found, was to be the property of the company, I would not ask that the Government should be called upon to pay for boring; but, if not, I should like to see the Government step in and subsidise the Harbour Board—say, £1 to £1—to put the bore down. There is a fair-sized borough there, and if the mine closes down the residents will all have to shift. I think the Commission might recommend the Government to do something in that direction. The Brunner mines have been the mainstay of the whole district, and if the Commission did that it would bring the whole district a great deal of good. There is also the Dobson bore going on, but our bore (Brunner) would do more good, because we have the machinery to work an extensive colliery. The initial expenditure has been made, and there is only a shaft to be sunk, and a pump required to cope with any water that may be met with. If coal is found in the Dobson Flat we shall have to find a company to work it.

4. Have you been in the workings under Taylorville?—Yes.

5. What was the character of the coal?—Very good until we got to the fault. I might explain that I do not blame the present management of the Brunner Mine for what has happened in the past, because he has got coal where I think it was never expected to get it. I was alluding to the former management.

SATURDAY, 23RD FEBRUARY, 1901.

A Deputation from the Greymouth Harbour Board, consisting of Messrs. KETTLE (Chairman), MATHESON, GUINNESS, PETRIE, SHEEDY, and ALLEN (Secretary) attended and made Statements.

Mr. Kettle : In conformity with a resolution passed at our last meeting we are here now to confer with the Commission in reference to the coal-mines in our district. The first place I will mention is Coal Creek. The mine at the present time is, I believe, under offer or purchase to an English syndicate. The land is owned by the Greymouth Harbour Board, but we have received no benefit from it in the way of rents and royalties for a considerable time. It is an endowment, and the Board is supposed to receive rental from it, but when the mine is not working we receive nothing. In the interests of the Board it is necessary that something should be done in the matter. We have expended something like £280,000 altogether in harbour-works in this district, and contemplate the expenditure of another £50,000 ; but if we do not receive the rents from our endowments it will be impossible for us to meet our obligations. We have made representations to the Government with the view to having the leases cancelled and allowing another company to work the mines if the present holders will not do so, and the Right Hon. the Premier (Mr. Seddon), when in Greymouth, promised us that something should be done within the next three months. That time is now up, and we would like you to urge upon the Government the necessity for making some satisfactory arrangements by which the company shall proceed to work the mines. I understand that the mine can be opened up for £20,000 to Coal Creek. The company at present holding the lease is known as the Greymouth and Point Elizabeth Coal Company (Limited). The lease at Brunnerton is being worked, but it is the Coal Creek Mine that we wish the Commissioners to urge the Government to open up at once. A fine seam of coal exists there, and it would be to the interest of all concerned if that were done. In reference to the mine at Brunnerton, which is owned by the same company, I understand that in the course of the next twelve or eighteen months the whole of the coal there will be won, and the result will be, if Coal Creek is not opened up, that the revenues of the Board will seriously suffer owing to the loss of both royalty and haulage-rates. We would also urge upon you the necessity for recommending the Government to assist us in prospecting the Dobson area. I understand there is a hard seam of coal at Dobson which only needs boring to prove. Mr. Seddon promised the Harbour Board to place on the estimates a certain amount of money to assist us in this direction, but up to the present we have received nothing.

Mr. Guinness : The inhabitants of Brunnerton and surrounding district, especially practical miners, are strongly of opinion that the continuation of the Brunner or Wallsend seam is to be found on a flat commencing from a point opposite Rocky Island and extending to the westward and southerly, known as the Dobson Flat. They think that the main body of coal will be found at a reasonable depth not only from their own experience, but from the reports made by Messrs. Cochrane, McKay (the Government Geologist), and Gordon, who were appointed a Commission to inquire into the coalfields of this district in 1893. A Royal Commission, consisting of Sir James Hector and Messrs. McKay and Brown, had previously (1891) inquired into the matter. Messrs. Cochrane, McKay, and Gordon, in their report on the subject, stated that from a geological and professional point of view there was a likelihood of coal being found in the Dobson Flat, and gave the probable depth that it would be necessary to go. The Greymouth Harbour Board, which depends upon the coal royalties and railway freights for a large part of its revenues, has been moving in the matter for some two or three years, and so late as last December Mr. McKay was sent down by the Minister of Mines to locate the spot it was considered advisable the bore should be put down, and pointed out one or two sites. The Board have agreed to do the work provided the Government will grant a subsidy of £1 for £1. I think everything points to the probability of a valuable seam of coal being found at that spot, and the Board would like the Commissioners to get such information as they can locally as will enable them to supplement and support the reports I have already referred to, because it is a well-known fact that the developed coal-measures in the Brunner district are coming to a termination. The mine is said to be nearly worked out at Brunnerton, and at present nothing is being done in the matter of further prospecting for coal. So far as I can see, there is nothing in the conditions of the lease granted to compel the lessees to do further prospecting, and in this connection I may state that the Harbour Board has spent a considerable sum of money to assist the lessees of the Brunner Mine to further prospect their mine. Even so late as last year we assisted them to a certain extent, but the company ceased to go on with their prospecting-bore, and stopped for some reason unknown to the Board when they were in likely looking country.

Mr. Matheson : I think the Government should try and support the industry when so much is dependent on it. Loans to the extent of £200,000 have been spent on harbour-works, &c., in this district, and the interest-charges on that sum are mainly dependent on the traffic and rents connected with the coalfields. At the present time the field is in a decaying state. Some eighteen months will see the Brunner Mine closed altogether, and the men employed will be reduced in number from time to time until the mine is closed down. I consider it of the utmost importance, in view of the heavy debt the district has incurred, that the coal industry should be persevered with and efforts made to find new seams. We have made application to the Government for boring-rods and other appliances, but they have dealt with the matter in a very dilatory manner. The Government told us that they had no boring machinery, but I understand that they told a Westport syndicate that they would procure some for their use. I think we are more entitled to the use of boring machinery, considering the interests at stake, than a new company starting in Westport. The colony has more at stake in this district. The company at Westport is now winning a lot of coal, and I think the interests of this district are equal to those of West-

port sc far as the Government are concerned. The colony's credit is pledged for the debt incurred here, and the Government should see that the coal industry is developed in order to give the district an opportunity to meet its obligations.

Mr. Sheedy: I think there can be no doubt, from the professional opinion that was given to this Board and to the country, that there is a large bed of coal in the Dobson Flat. Mr. McKay told me himself that it would be the future bed of coal in New Zealand, that it would be about five or six miles square, and that he thought there was scarcely a break in it. It is a pity that such a beautiful seam of coal should be left lying there dormant and undeveloped, particularly in view of the coal famine we had throughout New Zealand about twelve or eighteen months ago. The colony imports from New South Wales, I suppose, about half a million tons per annum, while here we have millions of tons at our doors undeveloped. I consider that to be a very unsatisfactory state of affairs, and think the Government should leave no stone unturned to assist our local bodies in developing our own large mineral resources with a view to stop the importation of coal into the colony. That is the one great item that this Board would like to bring under your notice, knowing that your report will have great weight with the Government and the colony. After humbugging and lingering with the Coal Creek Mine for the last twenty years, I am told that the late company has parted with it to an English syndicate, and I hope it is correct. They kept dilly-dallying with the mine for many years. The only thing they did was to make a bridge across the Grey River, and spend a portion of their money on the railway-line. There is any amount of coal undeveloped here within four miles of the Town of Greymouth; and, considering we had a coal famine in New Zealand so recently, I think that should be one thing the Board would request you to put very strongly before the Government, and, if this new company has taken over the mine, to urge upon the Government to see that the company opens the mine as speedily as possible, because it would be of great benefit not only to the Board and district, but to the colony at large. As a previous speaker said, How can the Board meet the demands of the debenture-holders in England if the Brunner mines are worked out before long? Where will the source of revenue be found? That is a matter the Government should look to equally with the Board, because the colony is responsible. Therefore I say no stone should be left unturned in the effort to develop these mines.

Mr. Petrie: What I think the Commission really requires to know is what has been done with regard to our coalfields in the past, their present position, and what might be done to improve them. It would be well to impress on your memory the evidence given by a witness you had before you a day or two ago—Mr. Russell, who is Mayor of Brunnerton. He is not only a miner of many years' experience, but was an underground manager of one of the mines at Brunner. I should emphasize this owing to the very valuable information he supplied with regard to our coal-measures. The development of our coal-measures has been retarded by unnecessary delays, through mismanagement, largely in the interests of the Westport Coal Company, and lastely, and not least, through monopoly. The delays that have taken place from time to time may be set down, to a considerable extent, to the want of finance on the part of the various companies that have taken up leases, and also to the undue leniency extended towards them by the various Governments that have been in office from time to time. In former years it was somewhat difficult to keep the coal companies going with their heads above water, but latterly that has not been the case, because the demand for coal has largely exceeded the supply. There is no doubt that this particular locality has lost a great deal of money, and a great deal of employment to units of the State, through mines not having been opened. Had they been opened the annual export from this port would have amounted to a quarter of a million tons, and the colony could easily have absorbed that amount. One or two previous speakers have referred to the money which has been expended by the Harbour Board, which is not the money of the residents of this district, but the money of the colony. The actual sum expended amounts to £435,000 in connection with harbour-works. That very large sum was intrusted to this district to expend by the Parliament and people of New Zealand, with the one object of developing our coal-mines for the benefit of the people of the colony as a whole. I regret that the coal-measures have not been developed in a proper way, and quite agree with Mr. Russell when he says that the interests of Greymouth have been sacrificed to the interests of another port. I do not say that the Westport Coal Company were wrong in looking at the question from a selfish point of view. Doubtless they thought that the coal there was easier to hew, and therefore more profitable; but, all the same, we have spent a large sum of money on our harbour-works to enable our coal to be exported, and these mines have been closed, although, as Mr. Russell says, there is a field of coal yet unworked of close upon five miles in area. I would like to see the development of our coal-measures forced on by the Government. Some people say that they should not be forced on in an arbitrary manner, but the time has gone for any more delay. No one can say that the Government have dealt harshly with those holding leases. If they had studied more the interests of the people as a whole they would not have granted the concessions they have from time to time to various coal companies. There is a strong feeling now in this district that the mines have not been opened by strong companies as they should have been, and that the Government ought to open them and carry them on as a State concern. The matter has also been mooted before our Harbour Board, and a suggestion made that a measure should be introduced to Parliament to allow the Harbour Board to open and carry on mines of their own. If that were done they would not look for an exorbitant profit, and would see that the workers obtained a fair wage. They would, in developing the mines, simply try to foster the industry, and pay interest on the money invested. Personally, I do not apprehend there is the slightest difficulty in regard to the Board's finance, because the position of the Harbour Board is undoubtedly strong; but at the same time, if the coal-measures were to give out in eighteen months, as Mr. Russell says, then the Harbour Board's revenue would

suffer seriously. It would not be the people of this district who would have to meet the demands made upon us, but the people of the colony. The Harbour Board is a nominated body appointed by the Government of the day, and if any loss were incurred the Government would be responsible. The first £100,000 of our liabilities is absolutely guaranteed by the Government, and the other £100,000 has been borrowed from Government institutions, and the Government would have to come to the rescue if we were unable to meet the demands made upon us, and pull the whole thing through in case of default. Of course, I do not apprehend anything of the kind, but just refer to it to show that in the event of a call being made it would be upon the colony, and not upon the district, and consider it therefore the duty of the Government to see that our coal-measures are not sacrificed in the future as they have been in the past. I cannot say anything with regard to the charge of mismanagement further than this: that results indicate it, if we are to accept Mr. McKay's statement as correct, and that of our practical miners, in which case we can come to no other conclusion than that there has been gross mismanagement on the part of some one. The question of monopoly, I think, should receive attention. Fuel, in my opinion, should be brought within the reach of every one, and not be subject to monopoly. The monoply is due, no doubt, to the carrying of coal being to a large extent in the hands of one company. I think it should be made a condition in all leases granted in future that, apart from contracts entered into, any steamer or other vessel coming to the district for coal should have an equal opportunity of getting a cargo with the Union Steamship Company. In the past that has not been so. I suppose we should have had more shipping if the coal had been available, but still vessels have had to wait until the boats belonging to the Union Steamship Company have peen supplied. If other vessels had had equal facilities, I believe our coal trade would have been further developed, and the people of the colony would not now have to pay so much for their coal. It is ridiculous that people here should pay £1 a ton for coal when the price paid for hewing is considered. The coal companies argue that they have had very serious losses in the past, but they have been due very largely to mismanagement.

1. *The Chairman.*] Do the companies or dealers sell it at £1?—The dealers. The companies sell it at 15s. per ton, while the price on board ship is 11s. The reason for that is very difficult to comprehend.

Mr. Matheson: The cash price of coal in Greymouth is £1 per ton; credit, £1 2s. With regard to supplying vessels that come to this port, I think they should have priority according to arrival, provided they give the current export price for the coal. That would do away with monopoly in the carrying trade. The whole thing is in the hands of the Government so far as this district is concerned. I am informed that a new company is going to take up the whole of the mines here, and as new leases will have to be made out, and the Government are the owners of the property, they will be able to make any reasonable conditions they like.

Mr. Kettle: If the State opened a coal-mine I think they would experience no difficutly in selling the coal. At present, if a merchant wants to get goods from Timaru or Oamaru, the shipping companies say, "It is no good our going down there, because we cannot get coal to carry from Greymouth." They would be able to carry goods if they could get coal.

2. *Mr. Proud.*] Do you not think an improved class of steamer is required to carry coal?

Mr Kettle: I do not know that; they would not be able to get trade.

Mr. Petrie: The Government at present are acting as carriers. The s.s. "Tutanekai" has been carrying sleepers for the railways, and is to all intents and purposes a carrier.

3. *Mr. Lomas.*] What has the Board spent on the bore at Dobson?

Mr. Kettle: We have spent nothing so far. We are willing to put down a borehole, and Mr. Seddon promised to subsidise the work in the proportion of £1 for £1; but nothing has been done so far, although Mr. Guinness and we have been using all the means we can to hurry the Government up. The last communication we got from Mr. Seddon was to the effect that he had forwarded the matter on to the Mines Department. I believe the Board would be willing to bear all the expense itself if authority could be obtained from the Government and it was thought that Mr. Seddon did not intend to do anything in the matter.

4. *Mr. Lomas.*] What is the estimated cost?

Mr. Kettle: We anticipate it will cost £1 per foot.

5. *Mr. Proud.*] What depth would the borehole have to go to prove the coal under Dobson's Flat?

Mr. Kettle: The place which we have thought of boring is 500 ft.

6. *Mr. Lomas.*] How far is that from the fault struck in the Wallsend Mine?

Mr. Kettle: It is just on the other side of Dobson, about 5 chains this side of the bluff—exactly opposite Rocky Island. £1,000 would be about the cost of prospecting the place.

Mr. Guinness: The amount is not very much, but it is our duty to try and get the Government to find some of the money required. The feeling of the Board is that if the Government decline to give anything the work should be done at the Board's expense.

Mr. Kettle: I do not know that the Board, after getting the promise, would be justified in providing all the money required. In reference to the Brunner Mine, the Board also spent about £50 in assisting the company to prospect, and were prepared to go to the extent of another £100, but the company did not go any further. We are even now willing to subsidise it to the extent of another £100 in the search for another seam.

7. *Mr. Lomas.*] Has any expert expressed any opinion as to whether the fault struck in the Wallsend Mine is an upfault throwing the coal on the Dobson side, or throwing it down?

Mr. Guinness: I think it is an upthrow, because it is estimated that we shall get it at 400 ft., and the old workings in the Wallsend Mine are down about 800 ft. in their deepest part.

8. *Mr. Proud.*] Do you think that every ship should be loaded in regular turn?

Mr. Matheson: Yes.

REEFTON.

MONDAY, 25TH FEBRUARY, 1901.

ROBERT CAIRNS examined.

1. *Mr. Hankin.*] You are a coal-mine owner?—Yes.

2. Of the firm of Cairns and McLiver?—Yes.

3. Can you give the Commission any information as to the coal-measures you are working?—They are from 8 ft. to 14 ft. in thickness, and the coal is of a very good quality, both for steam and household purposes. In fact, we are sending it down to Greymouth, Kumara, and Hokitika. It is bringing £1 10s. in the Grey, where they can buy other coal for £1.

4. As a matter of fact, do you supply this coal to your customers at Greymouth and Hokitika; and, if so, at what price?—Yes; we deliver it at the station for 18s. in bulk and 19s. in bags. The freight to Greymouth is 5s. 1d.; to Kumara, 6s.; and to Hokitika, 6s. 8d.

5. What is the freight from your works to the present railway-station?—8s. 6d. in bulk and 9s. 6d. in sewn bags.

6. What do you estimate the distance from the mine to the station at?—Close on five miles. [Situation of mine shown on plan.]

7. *The Chairman.*] What quantity of coal do you suppose you have taken out altogether?—I cannot say. We have 60 acres held under application to the Midland Railway Company, and we are working it by a tunnel.

8. What is the greatest distance from the mouth of the tunnel to where you are working?—350 ft. to the end of the main drive.

9. How many bords have you?—The first level is about 250, and the other 350, and we have two bords rising above the second level.

10. Is it a clean seam of coal with no impurities?—Like all other coal-mines, there is a little soft coal, and sometimes a little stone in it.

11. *Mr. Lomas.*] What angle is the coal on there?—The dip is an average of about 4 in. or 4½ in. to the foot.

12. Is one drive really underneath the other?—The lower drive is below the other, but there is a large pillar between. It is practically underneath.

13. You can only work a limited area at the time, then?—Yes; at the present you can put as many jigs up as you like, but you cannot go down without sinking.

14. Do you find it difficult to work bords on the rise?—There is a little trouble now and again—she takes a roll.

15. *The Chairman.*] How often does the Inspector come round here?—Every three months, and sometimes oftener.

16. Have you ever had any accident in the mine?—No.

17. *Mr. Hankin.*] What is the coal sold at in Greymouth?—£1 10s., and £1 16s. in Hokitika. That is by the bag. It is 3s. a bag with twelve bags to the ton.

18. Can you supply the demand made upon you from outside places, such as Greymouth and Hokitika?—No.

19. *The Chairman.*] Why not?—It is the carting that is costing so much.

20. How many tons a month do you send away to these outside places?—Last month I think we sent away about 72 tons.

21. Would it pay you to send twice that amount away?—No, because we should have to get an extra team of horses. Sometimes we have a lot of horses, and sometimes we have not.

22. *Mr. Proud.*] You only send your surplus coal away?—Yes.

23. *The Chairman.*] How many men do you employ in the mine?—Four men in the mine and two outside. If we had a railway handy we could put a great many more on. We can only fill a truck a day with the team of horses we have.

24. *Mr. Hankin.*] If a line of railway crosses the river, what facilities would it afford you in opening up that coal-seam? What rate would you be able to deliver coal at?—It would save about 6s. a ton for carting alone. That is the item which kills the trade.

25. *Mr. Proud.*] How many miles of railway would be required to tap the coalfield?—It would be about a mile and a half according to the old survey.

26. How far is your mine away from the main Reefton road?—It might be a little over three miles from the surveyed line of railway.

27. *Mr. Betts.*] What is your opinion about the dipping of the coal in this flat?—From our side it is dipping into the flat.

28. Do you know anything about the coal-measures on the western side of the valley?—I do. In 1868 I was prospecting for gold, and went up Stony Creek, opposite Larry's Creek, and came across a very large outcrop of coal.

29. What class of coal was it?—Very good coal.

30. Do you know the size of the measures?—14 ft. thick at least. Later on we applied to the Midland Railway Company for 1,240 acres further down in Fletcher's Creek.

31. You have had a great deal to do with coal-mining in your time?—Yes; with my people in the Old Country. I can trace the seam of coal I am speaking of down to Silcock's right across the Buller River below the Junction. It is splendid burning-coal.

32. *Mr. Proud.*] With what kind of ash?—White ash.

33. What was the quantity?—It did not seem to be much. It was just a light ash—white or half yellow. On the western side of the Inangahua you can trace it down to Coal Creek by way of Boatman's—that is sixteen or eighteen miles—and you can trace it twenty miles on the western side down to Buller Junction.

34. Do you think the coal-seam is continuous?—Yes. You can pick it up in the little gullies about here.

35. *Mr. Hankin.*] Is there more than one seam in the ground you are working at Burke's Creek?—There are five different seams one above the other.

36. What is the distance between them?—I do not suppose there is more than 200 ft. between the lot—250 ft., anyhow.

37. *Mr. Lomas.*] What is the depth?—There is one 10 ft. or 12 ft. The other is about 4 ft. 6 in.; the next 8 ft.; and another about 2 ft. above that again; the next one is about 3 ft. It is jumbled up, and there is a lot of stone in it. Then, there is a big one which we are working above the others.

38. And all these seams run parallel with the one you are working?—Yes.

39. *Mr. Proud.*] Do you think they continue below the pit you are working?—Yes; there are five seams there.

40. *Mr. Hankin.*] Do you think it would be an advantage to have boring-rods introduced?—Yes, I do.

41. Do you know anything about Fern Flat?—Yes.

42. Do you think that is likely to become a coal-bed?—In my opinion, that is the main coal-bed.

43. *Mr. Lomas.*] Have you struck any faults in the seam you are working?—We have struck rolls where it gets a little soft.

44. *Mr. Proud.*] Have you had any slips when working it?—No. The Inspector looks after that. There is a sandstone roof, and between that and the coal there is sometimes a foot of bluish stuff something like a slate.

JOHN JAMIESON examined.

1. *Mr. Hankin.*] Can you afford the Commission any information with respect to the coal in this district?—Only about the Inkerman and Rainy Creek Mines.

2. Were you working there?—Yes.

3. What is about the size of the coal-measure?—The average of the Inkerman is 4 ft., and the Rainy Creek about 8 ft. I have been working there since 1875.

4. What is the coal used for?—Steam.

5. For driving the batteries, I suppose?—Yes.

6. Can you give me any idea as to the quantity of the coal taken out while you were there?—In Rainy Creek about 300 square feet altogether.

7. That is during how many years?—Off and on, for about twelve years.

8. Is the coal hard?—Yes; it is the hardest coal in the district, so far as I have seen.

9. And an excellent steam-coal, I suppose?—Yes, very good.

10. Do you know of any other coal besides that?—There is another seam between Rainy Creek and Merrijigs; but there has been nothing done on it whatever. It is about 3 ft. or 4 ft. wide.

11. What is the character of this coal?—It is very good; and just about the same as at Rainy Creek.

12. Is there any other coal in that locality?—Yes; there is some crossing Rainy Creek of a vertical character about 12 ft. in thickness; but nothing has been done with it.

13. Did you try the coal?—Yes; it was a hard, good burning-coal.

14. *Mr. Lomas.*] How far are these seams from the present railway-line?—About nine miles.

15. Is the country difficult to make a railway in?—It would be all sideling.

16. What is the nature of the ground on each of the side seams that are vertical?—It is of sandstone on both sides. It is finer sandstone on top than it is underneath.

17. The sandstone is soft on the top?—Yes; it is a good deal finer.

18. Do you think it would be difficult to timber?—No. In the Rainy Creek they only use a "soldier" to every 8 ft.

19. *Mr. Proud.*] Do you think the vertical seam would be easy to work?—The Rainy Creek seam rises about 6 in. to 12 ft. The Inkerman is about foot to foot.

20. *The Chairman.*] The coal-seam you are speaking of is in the heart of the quartz reefs?—There is coal on both sides. There is about half a mile of quartz country.

21. You expect a large development of the quartz reefs, do you not?—Yes.

22. And a very large quantity of coal will be required?—Especially up there.

23. And it is nine miles to this place from the nearest line of railway?—Yes, it would be about that.

JOHN TRENNERY examined.

1. *Mr. Hankin.*] You have had some considerable experience of the coal in this district, I believe?—Yes. For twenty years, from 1872 to 1892, I have been connected with coal here both for steam and domestic purposes. The coal is excellent for both purposes, and the very fine coal—I am speaking of the Murray Creek Mine—is good for steam purposes. My experience outside Murray Creek is limited. I know there are coal-mines being worked in Burke's Creek and Boatman's. I had a mining area in Boatman's, and developed it, and it proved to be a very large seam of coal of good quality, but there being not sufficient demand for it I gave it up. That is all I can say about the coal in Boatman's district. I only know that coal extends in outcrops down to Landing Creek.

2. Have you any knowledge as to whether the coal is marketable outside this district?—Yes; I believe plenty of coal has been sent away, but I have not sent it.

3. I suppose the drawback is the absence of haulage or railway communication?—That certainly would be a drawback.

4. *Mr. Lomas.*] Can you tell us what area has been worked in Murray Creek Mine?—From my own knowledge, we were working two engines—one for crushing and the other for winding—and the coal was taken out of one drive, a length of which would not be more than 200 ft.

5. The drive was only 200 ft. in?—The coal was taken out for about that distance. The width of the drive would be about 12 ft.

6. There were no bords?—No. We only took out what was required for our own use, but the ground has been worked since by other mines. It has been worked since 1892 by other parties, both for domestic and mining purposes.

7. When you stopped was that drive still in good coal?—No; the drive was then underfoot. We had driven right under the spur from one coal to the other. I think it would be from 250 ft to 300 ft. in length, and the seam was underfoot and overhead.

8. Did you strike a fault there?—No; we only took out what was required. This drive gave us the quantity of coal we required for our engine.

9. Was that the mine which is supplying Reefton with coal?—Since that time it has, but not in my time.

10. And is it still working?—Yes; there must be a very large quantity of coal in that locality.

11. *Mr. Proud.*] You do not know for what distance it has been proved?—No.

12. *Mr. Lomas.*] What was the thickness of the seam which you took your coal from?—From, say, 6 ft. to 20 ft.

13. That is the coal we see burning generally in the district?—I do not know. I think most of the coal here comes from Burke's Creek. There is some that comes from Murray Creek.

14. *Mr. Hankin.*] You know the coal in Burke's Creek is good steam-coal?—Yes, excellent coal; and so is that from Murray Creek.

15. What is the cover in Murray Creek?—It is the sandstone cover.

16. Is it right on the coal?—Yes.

JAMES CONNOLLY examined.

1. *Mr. Hankin.*] You have been identified with coal-mining in this district for some time?—Yes, since 1874.

2. What mines have you worked in?—Principally Murray Creek; but I also worked one close to the town. In fact, part of the coal-measure is inside the town boundary.

3. For what purpose was the coal used that was obtained from Murray Creek when you were working there?—For household purposes and for steam.

4. Did you supply the different batteries?—Yes. It is a splendid steam-coal.

5. What quantity of coal did you supply to the mines?—The Energetic Mine used to take from 25 to 40 tons a week. It was a very good lasting coal; but all the coal up Murray Creek is good. They get splendid results from it, and the very finest—what is called refuse—will burn.

6. From your long experience of coal in that locality, what is your estimate of the area of the coal country?—In Murray Creek there are two outcrops. One has been worked since 1872, and the coal is about 20 ft. in thickness. Portions of it are in shallow ground with scarcely any cover on it, and another portion of it is on a hill. The coal cuts out in the creek. Where we are working just now it does not seem to go down, although people believe it does. There is a very large area of coal in the Phœnix Mine, and, continuing south, it goes into Lankey's Creek. That run of coal can be traced to the Big River, a distance of some eighteen miles. In Murray Creek the coal is excellent, and there is a great deal of it. There is another measure lying east, and parallel with it. Pretty well all the measures run parallel with the quartz reefs, and the Murray Creek coal runs in the same direction. It can be traced from Boatman's, from there to the Progress Mines, and from there to the Francis Drake Mine, to Deep Creek between the Big River and Merrijigs—that is, to the Cumberland Mine. That, I hold, is the continuation of the Murray Creek line of coal. As far as I went south I could find coal-measures up to the Big River.

7. *Mr. Lomas.*] What is the angle of the coal-measures?—They would be about 4 in. to the foot. They vary, and some of them are very steep. In Murray Creek, where Mr. Fox is working, it will be about 1 in 1. The average might be 1 in 2. Some, of course, are flat. Where I am working at present the coal is flat, but it rises with the hill. All the coal we know of takes a rise. Coal is generally found outcropping, and is easily prospected. It generally rises with the hill.

8. Where the country is flat is the coal flat?—Yes; and where the ground rises the coal rises with it.

9. *The Chairman.*] Have you any idea what the consumption of coal per annum is in this town?—Mr. Cairns, of the Burke Creek Mine, might be able to tell you that. It would be about 100 tons a week, I should think.

10. Would that include coal for machinery as well as household coal?—No; it would be nearer 200 tons. This Murray Creek coal is in great demand outside the district.

11. Do you get many inquiries for it?—Yes. We have sent a few trucks a week away during the winter, and some during the summer too.

12. Does it amount to a few trucks a week?—Yes; we have not been able to supply the demand. People are prepared to pay more for our coal than for either Blackball or Brunner coal, because it is better house coal.

HENRY GEORGE HANKIN examined.

1. *The Chairman.*] What are you?—I am secretary of the Reefton Railway League, and on behalf of the Railway League and the people of this district I have to thank you for responding to our request to visit Reefton. We were very anxious to get evidence placed before the Commission on account of our efforts in the past for the purpose of getting railway extension beyond Reefton. The Government have promised time after time to send an expert to examine our coal-measures, but hitherto they have failed to do so, and the Railway League thought that if the they could get this Commission to take evidence it would answer the same purpose. I produce a certified plan of

the district which shows the various coal-measures throughout this field. [Plan produced and explained.] From the plan it will be seen that the extent of the measures is very considerable. They include the Murray Creek Mine, Golden Treasure, Phœnix, Ajax, Lankey's Gully, the Reefton Coal-mine, Cochrane Mine, Devil's Creek, Inangahua, Progress, Sir Francis Drake, Cumberland, Cogland's, Archer's, and the Alexandra Mines. We have one at Giles Creek, which I will call evidence upon.

DAVID BLACKADDER examined,

1. *Mr. Hankin.*] You have a coal-mine application?—Yes; an application for 180 acres.
2. Where?—Adjoining the Town of Reefton. It embraces what was originally known as the Reefton Coal Company's area—Joyce's application.
3. What is the size of the seam you have there?—10 ft.
4. What is the character of the coal?—About 6 ft. of it is good coal; the rest of it would not be saleable.
5. Have you tried the coal?—I have.
6. You are a smith by trade, I believe?—Yes. I have not tried it for that purpose, as I did not thiuk it would be suitable.
7. Is it suitable for steam purposes?—Yes; it is a steam and household coal.
8. Have you traced it for any distance?—Yes.
9. How far?—For 7 or 8 chains. It is outcropping on the surface.
10. Do you find it underfoot?—It is all underlying or dipping to the north-west into the Inangahua Valley, and, from observations I have made elsewhere, it appears to be all running into the valley. It is the same at Devil's Creek, and wherever you get it. It is underlying in the valley. In the left-hand branch of Boatman's you see the river is cut down through the seams.
11. What is the nature of the country—slate or sandstone?—There is no slate, but there is sandstone in the roof. There is also fireclay; also what is called coal-grit.
12. What part of the seam is unsaleable?—The top part of it in the roof.
13 Is it so rotten that it would be difficult to timber?—I do not think it would be difficult to keep up.
14. Is it soft from the outside where you have struck it?—No; it is a very hard coal from the outside. The water has been running over it in one place, and it is still hard.
15. The inferior coal is on the top of the good coal?—Yes.
16. *Mr. Proud.*] In what respect is the top coal inferior?—It is soft, and would not stand carriage.
17. But the quality is good enough?—Yes. I expect to be able to send coal away to Greymouth, and even to Wellington, when I get started.
18. *Mr. Lomas.*] Can you give us any idea of the cost to hew?—I find it would cost somewhere about 3s. a ton to cut it. At the mouth of the mine it would cost about 5s. a ton; not more than that, because the timber is on the ground. The trouble would be to get it to the station—the carting. If the railway were across the river it would cheapen it considerably.
19. *Mr. Hankin.*] What do you estimate it would cost to bring it to the station?—I may possibly be able to land it at the station at 6s. carriage, if I carry out the plan I have in my mind.
20. *The Chairman.*] Have you ever worked in a mine under Government inspection?—I have not.
21. You do not know anything about return airways and brattice and faces?—No, there is nothing of that sort in this district. With regard to the coal lying into the valley, if it comes within the province of this Commission, I would recommend that all lands lying in the valley should not be alienated from the Crown, because it would injure the prospects of this district by hindering the getting of the coal, and would not be in the interests of the railway. There were several applications for coal-bearing ground at the last meeting the Land Board had here.
22. *The Chairman.*] Was the land sold?—No; the applications only are in. If the Commission can make any recommendation that, in the interests of the country, the freehold should not be parted with, I think it would be a good thing.
23. That is another reason why we should urge that a geological survey should be undertaken?—Yes; I am only applying for a lease.

HENRY BETTS examined.

1. *The Chairman.*] You are Chairman of the Inangahua County Council, I believe?—Yes. I wish to bear out what Mr. Blackadder said in connection with the Crown lands situate in this valley. I am of opinion that all the flat land about here is coal-bearing, and that the Government should not permit its alienation until such time as it has been proved to be coal-bearing or otherwise. I think it would be seriously antagonistic to the interests of the district if the land passed out of the hands of the Crown, and, as the representative of the public here, I would urge upon the Commission the necessity of representing this aspect of the matter to the Government.
2. Has it not been alleged that the district has been kept back for years owing to the land having been locked up by the Midland Railway?—In a great many instances it is, and particularly in other parts of the West Coast. But I think the district has been kept back here considerably—especially in connection with the coal-mining industry—through the people not being able to get a title.
3. There would be no difficulty now that the lands have been released by the Midland Railway Company?—No. That is a very good thing now so far as coal-mining is concerned. The best land, I think, for pastoral and agricultural purposes has already been alienated, and the possibility is that people may try to get hold of a lot of coal-bearing land for grazing, and endeavour to get a freehold title. Some of the land that we anticipate to be coal-bearing is very valuable for timber purposes as well.

THOMAS PENNIALL examined.

1. *Mr. Hankin.*] You have been a resident of this district for how many years?—For twenty years.

2. Do you know anything at all about the coal in this locality?—I am not much acquainted with the coal, but I know there is coal down at Murray Creek and at the Landing.

3. What coal is there?—There is coal at the Bottom Creek, and about four miles up in the outcrop.

4. How many feet is the seam?—About 2 ft. thick, I should think; but I did not take much notice of it.

5. Do you know anything about Murray Creek?—I have seen it, but I am not well up in coal.

JOSEPH GEORGE WALSH examined.

1. *The Chairman.*] What are you?—I am road overseer at present.

2. Have you been engaged in mining?—Yes, for the last forty-eight years.

3. Have you any experience in coal-mining?—Yes; I have been coal-mining at different mines for a long time, and worked at it several years.

4. *Mr. Hankin.*] Do you know anything about coal-deposits in Giles Creek?—Yes; I have during the last few days marked off 50 acres of a seam. There is a seam there visible of 20 ft. solid, good, hard coal.

5. Coal similar to that of Murray Creek?—It is the better, I believe, of the two; and if the Commission will only come down with me to-morrow I will show them the seam.

6. Have you worked coal?—Yes, a little outside Reefton in a mine; and not only then, but in the old times. When you come to the west side of the valley the underlie of the coal is into the valley, and on the east side it underlies to the west too. From that down to the Junction you will find coal formation. Dr. Hector told me many years ago that there was a great seam of coal here and in the Inangahua Valley.

7. Do you recollect Mr. Cox, of the Geological Department, being here in 1872?—No. You will find coal down to the Landing—that is, Coal Creek—and on the opposite side you will also find it.

8. *Mr. Proud.*] Have you seen the coal there?—Yes.

9. What is the thickness?—I cannot say the size of the seam, but I have marked 50 acres out in the last few days to take it up, and if you gentlemen will come out with me I will show you the seam. It is a rock coal of 20 ft. in thickness visible, and it might be 30 ft. or 40 ft.

10. *Mr. Lomas.*] Has there been any work done in that particular field?—It has never been touched.

11. *Mr. Proud.*] Do you think the bed is continuous?—I think it continues right into the saddle. There is an outcrop to show that it exists, and the coal formation runs right through the whole valley.

12. *Mr. Lomas.*] Has any coal been taken out to test its quality?—No; but I am sure it is superior to anything we have got here yet. I have worked for years on coal on the east side of the valley, and it all lies in the valley. Dr. Hector told me the same, and I have proved that he was correct.

13. Can you tell me how long it is since coal was first discovered in Giles Creek?—It is about fifteen years since I discovered it first. I discovered it in three places.

14. How far is it from Reefton?—About five miles.

15. Is there a road to it?—Yes, about a mile and a half from the river, and you can ride a horse right up to it.

16. *Mr. Proud.*] Is there a good sandstone roof?—Yes; and it shows fireclay too.

17. *The Chairman.*] In how many places have you traced this outcrop?—There are three places in Giles Creek.

18. Is it in the face of the cliff?—It is up a cliff.

19. Where did you find the coal—in the bed of the creek or up in the bush?—Right at the edge of the creek.

20. Did you strip it at all?—No.

21. How did you get the depth of it?—I was standing on hard coal, and it was 18 ft. right over me. It was hard rock coal.

22. How high was the cliff above?—It was near the surface.

23. When the hill receded did it rise up?—Yes, to about 200 ft., and then down a little lower it would go over that.

24. How far from that place did you find any other outcrop?—I could not say; but I am quite satisfied with it to mark it off. There are three places that I know of where the outcrop can be seen.

25. Fifteen years ago you saw two other places?—Yes.

26. How far away?—I could not say, because I did not take much notice of it. It might be 18 or 20 chains.

27. Still further up the creek?—Yes.

28. How long is it since you pegged it off?—Two days ago.

29. Did you go and visit it again when you marked it off?—No; I had been there twice or three times before I marked it off.

30. How long ago?—About a week ago.

31. You only saw this one outcrop?—Yes, at that time

32. *Mr. Lomas.*] From what you remember of these other seams, are they similar to the seam you have marked off?—I do not remember that, because when I went out fifteen years ago I took very little notice of it.

33. You cannot give us any idea whether these small seams were above the big seam or below it?—They might be the same seam, or they might be seams of coal one under the other.

GEORGE WELLS examined.

1. *The Chairman.*] What have you to say about these mines?—At the request of the County I went to Charleston. The road I took was up Giles Creek, and in going there we went through four different outcrops. That would be about four years ago, from memory. Three of these outcrops were small seams, one being about 6 ft. and one about 12 ft. I also know that a few miles further on there is another creek, which I would take to be the same outcrop. This was about three miles further on. It seems to be very hard bright coal, and you can meet it as far down as the Inangahua River, where it is broken away from the outcrop. I have not tried any of it. Continuing further down each successive creek goes a very large body of coal something of the same size until you get to Lankey's, eight or nine miles further on. I should imagine it was the same run of coal going through that district [place described on the plan]. We call the place Stony Creek, and it is a terrace country, mostly granite.

2. *Mr. Betts.*] What about the quality of the seams you saw?—I saw them driving down the creek, and picked up loose pieces in the creek and burnt them. I got very good fire from them, and I do not think you could have any better test than that.

3. *Mr. Lomas.*] Are the seams of the same quality as the big seams, or are they better or worse?—I was not looking for the quality of the coal.

4. Can you give us any idea of the nature of the ground, as to whether it was softer or harder than that of the big seam?—I could not. The first seam I looked at had very little surface on it, and no rock was showing. The alluvial deposit was on top of it.

5. Is there rock on top of the big seam?—Yes.

6. And there is no rock on the small ones?—No. The large one goes into the Paparoa Range.

7. Can you give us any idea of the altitudes of these seams?—From the first one—the 6 ft. seam—to the large one there would not be a rise of more than 40 ft. or 50 ft.

8. Then, the large one would be higher than the small one?—Yes.

9. The small seam would be lower than the big seam?—Yes.

10. Did you notice the ground?—It was of alluvial deposit.

11. Was it pitched about?—Yes.

12. And it might be part of the big seam?—No; I do not judge it would be the same outcrop. The large one is probably 50 ft. higher than the first one I came to. They were dipping from the river.

GREYMOUTH.

MONDAY, 25TH FEBRUARY, 1901.

JAMES LOUIS DOOGAN examined.

1. *The Chairman.*] You are a commission agent, residing at Greymouth?—Yes.

2. You have lived here for how long?—Fifteen years—since 1886.

3. And you were local agent for the Wallsend Coal-mine?—Yes, after the Grey Valley Coal Company took it over. I was the agent for shipping the coal.

4. In what year did your agency begin for the Wallsend Mine?—In 1888, at the time of the amalgamation.

5. Had you been agent of it before for any other company?—Yes. I was agent for Mr. Kennedy, of the Brunner Mine, and when he amalgamated with the Westport Company I acted for them; and when the Greymouth-Point Elizabeth Company took it over I went on for them.

6. The Wallsend Mine became the property of the Westport Coal Company at one time?—Yes.

7. Was that before your connection with it?—Yes.

8. But it was in 1888 that the Grey Valley Coal Company was formed which took over the Wallsend Mine?—Yes; and the Brunner, Coal-pit Heath, and Tyneside also. The Tyneside was a little mine a little above the railway-station. At that time it was worked by the Grey Valley Coal Company for a little while.

9. Have you any idea of the amount of money expended on the Wallsend by the Westport Coal Company prior to the amalgamation?—No.

10. What work was done?—They sank a shaft 600 ft., and they put up what was said to be the best winding plant south of the line. They spent a lot of money, no doubt.

11. The whole thing was opened in a first-rate way?—Yes. It was understood to be opened in the best possible manner, and no expense spared. The intention of the Grey Valley Coal Company was to take all the coal up there to connect with the Coal-pit Heath and bring it up the Wallsend shaft.

12. What class of coal was got from the Wallsend?—It was not good coal.

13. Was there any difficulty in selling it?—Yes, very great difficulty. In fact, in shipping it we were obliged always to mix it with Brunner and Coal-pit Heath in order to get it sold at the other end. It was very often condemned. The Railway Department condemned it at different times.

14. *Mr. Lomas.*] Was that on account of the stone or the softness of the seal, or both?—The stone mainly, I think.

15. *The Chairman.*] What was the matter with the coal?—I would rather leave Mr. Bishop or Mr. Alison to answer that. I know there was a difficulty in selling it. We had sixty or seventy trucks condemned on one occasion by the Railway Department at Lyttelton.

16. *Mr. Proud.*] Was it a good gas-coal?—Fairly good, I think, but never so good as the Brunner, nor as good a household coal.

17. *The Chairman.*] At the time of the amalgamation, in 1888, you say the Grey Valley Coal Company owned the Wallsend, the Coal-pit Heath, and the Brunner Mines?—Yes.

18. And there was another company called the Greymouth-Point Elizabeth Coal Company?—Yes; but they did not come into existence for years after that. The Coal-pit Heath Coal Company owned the Coal-pit Heath Mine, and the Westport Coal Company bought it.

19. Did the Westport Coal Company work it?—Yes; and when the amalgamation took place Mr. Kennedy put in the Brunner Mine, the Westport Coal Company put in their two mines, and the Union Steamship Company bought half Mr. Kennedy's share. The Westport Coal Company was working the Coal-pit Heath Mine at the time of the amalgamation.

20. Do you know anything about the Blackball Mine?—No.

21. How long has that been working?—About two years, I think; perhaps more than that.

22. Have you any idea of the amount of coal won from the Wallsend Mine, in round numbers?—I would not like to say without looking it up.

23. Do you know the extent of their workings?—No.

24. The Grey Valley Coal Company went into liquidation, did it not?—No; they sold out to the Point Elizabeth Coal Company, which was formed by Mr. McDougall, in London, to take over the Coal Creek mines, and after Mr. McDougall floated it Mr. Bishop acted for him. Then the Greymouth-Point Elizabeth Coal Company bought out the Brunner and Coal-pit Heath Mines.

25. And what about the Wallsend?—I do not think they touched that.

26. Who owns the Wallsend Mine at the present time?—The Westport Coal Company, I believe. They had a freehold of 150 acres where the buildings were put up.

27. I was told this morning that the Grey Valley Coal Company was in liquidation, and that Mr. Joachim was the liquidator?—I do not know how the matter is settled.

28. What became of the machinery in the Wallsend Mine?—It has been sold at different times to different people. The winding machinery has been sent to Newcastle.

29. How long is it since it was dismantled?—I do not think it was worked more than two or three years after the amalgamation.

30. That would bring it down to about 1891?—Something about that.

31. Up to that time had a considerable quantity of coal been taken out and sold?—Yes; there was a very good output while it was working.

32. Did it reach 100,000 tons altogether?—I should say more than that.

33. Would it reach 400,000 tons?—The actual figures can be obtained. It would be only guessing if I gave the amount from memory.

34. Were you connected with the company at the time of the maritime strike, in 1891?—Yes.

35. Do you know what led the company to dismantle the mine?—I think it was the bad coal. In making the connection between the Coal-pit Heath and Wallsend Mines they reckoned on getting a marketable coal, but on getting across the river they did not get it. I cannot speak with absolute certainty, but I think that was the cause.

36. Was it worked at a loss?—The mine could have been worked profitably if they had been able to sell the coal.

37. Did it prove a loss to the company?—Yes, a decided loss, I think. I know we could not sell the coal without mixing it with Coal-pit Heath and Brunner coal, and we were lessening the sale of both those mines at the other end.

38. *Mr. Proud.*] In what way did it damage the other coal?—When the Wallsend coal was mixed with the other coal the steamers and railway people were not so well satisfied as when they got the other coals by themselves. It was almost impossible to sell Wallsend coal by itself.

39. *The Chairman.*] Was any quantity of coal taken from the Coal-pit Heath Mine?—Yes; it was about the best coal in Brunner.

40. Was that mine in proper working-order?—Yes, as far as I know. Of course, they lost some of the coal in the dip at the finish.

41. Did they spend much money in opening the mine?—Not nearly so much as at Wallsend. They did not need to go so deep. A lot of money was spent to keep down the water.

42. Will you tell us the story of the Coal-pit Heath Mine?—The mine was being worked by Coal-pit Heath Coal Company, of which the late Mr. Nancarrow was secretary, and Joseph Taylor and others directors. I do not know whether Mr. Williams bought it then, or whether he and Mr. Taylor bought it together; but eventually the Westport Coal Company got it. In the old days I think Mr. Joseph Taylor or his father had it.

43. What happened when it came into the Westport Coal Company's hands?—They worked it just as before.

44. And it was good saleable coal?—Yes.

45. When did it shut up—at the same time as the closing of the Wallsend Mine?—It was closed through the water rising. They had a lot of trouble in pumping the water out of the mine.

46. Why was it shut up?—The water rose on them, and I suppose they had not enough pumping machinery. I understood from the experts that the ground was cracking from the surface and the water was percolating through. There was a fire there at one time which increased the water difficulty very much, as they got an engine to put the fire out, and let a lot of water into the mine.

47. There is a great deal of good coal left which would have been got but for the water?—I think there is. It was the most marketable coal we ever had.

48. Do you care to give any expression of opinion as to the possibilities of reopening the mine, considering the improved conditions of the market?—I prefer not to. I do not really know anything about the practical part of opening a mine.

49. When you were selling the coal from the Wallsend, Brunner, and Coal-pit Heath Mines, whom did you sell it to?—We were supplying the railways, the gas companies, the steamers, and had some household trade.

50. Did you sell to any ship that came here, or did you give a preference to any class of vessel?—We made contracts and then arranged for the carrying of the coal. Mr. Kennedy always had depots for the sale of the coal, and the Grey Valley Coal Company and the Westport Coal Company took those depots over. Nearly all the trade the Grey Valley Coal Company had was in railway contracts, and with gas and shipping companies. The New Zealand Shipping Company have had the Blackball Mine lately.

51. *Mr. Lomas.*] Who were the carriers of your coal?—The Union Company.

52. No one else?—Yes; the Anchor Company and the Steam Packet Company.

53. To supply your contracts?—Yes, or the local dealers. There are several other little shipping companies coming here for coal.

54. *The Chairman.*] Are you connected with the coal trade now?—Yes; in the shipping of the coal, as before. I ship for the Greymouth and Point Elizabeth Coal Company.

55. And the only coal they send out is got from what mine?—The Brunner.

56. What are the prospects of the Brunner Mine?—You can get that better from Mr. Alison. I really do not know of my own knowledge.

57. Supposing a ship came from China, and was owned by some outside firm, what chance would they have of getting a load of coal from Greymouth?—They would get the coal if they came and were prepared to pay for it.

58. There is no contract, agreement, or system of trade, as far as you know, that would prevent the vessel being loaded?—Not so far as I know. Coal companies enter into contracts for the supply of coal, and no doubt enter into arrangements with the Union Company.

59. And these contracts must be supplied before outsiders can get a load?—Yes, no doubt; but I think they would be very glad here to sell the coal to outside people if the steamers would come and take it.

60. *Mr. Proud.*] Supposing a sailing-vessel arrived here, and the captain offered cash for a load of coal, would you load that vessel on the usual terms?—Yes. I have never had any instructions from the company in an opposite direction.

61. *The Chairman.*] Say that a sailing-ship comes in capable of carrying 2,000 tons; you have put 1,000 tons on board when a Union boat comes in and wants to be loaded at once: would you load her before you finished loading the sailer?—We might under certain circumstances, but the rule has been to load vessels in turn. The contract delivery may be short, and sometimes we run very short for the gas companies and railways, and, of course, we are under penalties to keep them supplied. When we have two ships together we load the one that is most urgent first. Certainly I think a steamer would get some little preference in the order of loading. Steamers, as a rule, will work overtime; and sailers rarely do that.

62. Say it was a strange steamer that came here?—The rule has been to load steamers in the order in which they arrive. There might be a slight difference sometimes.

63. Supposing you had got an order from Lyttelton for coal, would the strange steamer get coal?—It would all depend upon the urgency of the delivery at Lyttelton. If the contract had nearly run out we should probably load the steamer first.

64. You only do that to save penalties?—Yes. If we varied our practice with regard to loading steamers in turn it would be only to save penalties.

65. *Mr. Proud.*] If you had larger quantities of coal to deal with you could take some of the outside trade?—Yes; we are not in the position now to take it.

66. *The Chairman.*] What do you sell the Brunner coal at locally?—16s. The dealers get a concession on that. That is the price delivered on trucks at the Greymouth Railway-station, or at the sidings of the coal-shoots.

67. Is there any limit as to quantity?—No; per truck-load. All the trade goes through the dealers.

68. What do you sell it to the dealers at?—I think they are paying 14s.

69. You do not sell to private individuals?—Not as a rule. We may sell an odd truck now and again, but as a rule it goes through the dealers.

70. That 14s. is for the coal on the railway-siding in the truck?—Yes.

71. What is the dealer's charge delivered in the householders' bins?—I think it is £1 1s. per ton. It may be more if the quantities are small.

72. Have they to screen the coal after they get it?—Sometimes.

73. Is your price of 14s. for screened coal?—Yes.

74. What is the railway-haulage?—2s. a ton supplied to local people, and 1s. 10d. to the shipping.

75. And the royalty is 6d.?—Yes.

76. The contribution to the Accident Fund is what?—½d. a ton.

77. Is there any other charge?—That is all, I think.

78. Have the prices risen lately?—I think they have been put up 1s. a ton. That would make it 15s. per ton.

79. What do they do with the screenings—the slack?—Make coke out of it. They get nuts and slack.

80. What do they sell the nuts at?—12s. a ton.

81. Where?—In Greymouth. A dealer would pay 11s.

82. And the slack?—8s. a ton.

83. And are you able to sell all the slack?—No; that is the trouble.

84. What proportion of the slack are you able to sell?—They would be able to tell you that at the mine. I do not know, but I know there is a good deal of loss.

85. What is the freight from here to Wellington?—I can only say from hearsay. I believe it is 6s. a ton.

86. What do you charge for the coal f.o.b.?—That is regulated in the head office.

87. You only know about the local sales?—Yes; I expect the price varies.

88. Can you make any suggestions to account for the difference in price when it reaches other markets? Take the dealer's price here at 14s., and 6s. for freight—that is £1: how does it go up to £1 16s. and £1 18s. in Wellington?—I do not know. Of course, the dealer here will get the coal in a much better condition than the man in Wellington, because he gets it straight on to his shoot without it being handled. The coal in the other case is dropped into the ship's hold, and half a dozen men with shovels are sent down to trim it; and the same occurs at the other end; and therefore they must must have a larger percentage of waste. That would account for part of the difference in price. I do not think there is very much of our coal sold in Wellington.

89. *Mr. Proud.*] The freight would be less from Westport than from here?—Yes, I expect it would, but I do not know.

ROBERT TENNENT, Inspector of Mines, re-examined.

1. *The Chairman.*] You are well acquainted with the Brunner Mine?—Yes, I am perfectly acquainted with the Brunner Mine.

2. You worked there, did you not?—All my time.

3. How long?—Thirteen years before the accident.

4. And you have been Inspector for how long?—Three years past last July.

5. Has the Wallsend Mine been working since that time?—No, not since the maritime strike. It was shut down then.

6. It was shut down when you took office?—Yes. I was never in the Wallsend Mine.

7. And the Coal-pit Heath Mine was also shut when you took office?—Yes.

8. Have you ever been in that mine?—Yes, but not at the time it was shut down. That was ten years ago.

9. Was it working then?—Yes. I was there at the making of the haulage-road. After the amalgamation the Brunner and Coal-pit Heath Mines were connected, and the Brunner and Coal-pit Heath coal was loaded at the Brunner shoots.

10. Have you any idea of what quantity of coal was taken out of the Coal-pit Heath Mine, in round numbers?—I could not tell you that. That would be given in the Mines Annual.

11. How much money was spent on the Coal-pit Heath Mine in opening it up?—There might have been probably £15,000.

12. Do you know the reason why the mine was shut up?—It was flooded and overpowered by water.

13. Is there any prospect of the water being overcome?—It has been talked of. Mr. Alison spoke very favourably of opening it up at one time by pumping the water to the level of the Coal-pit Heath shaft.

14. Do you think it would pay?—I think so, from the coal that I know exists in the Brunner Mine above the level of the Coal-pit Heath shaft.

15. You think sufficient coal could be got out to show a profit?—Yes, from the level of the Coal-pit Heath shaft. Taking the Brunner coal into consideration, there would be sufficient coal there to warrant pumping the water out. The two mines would need to be worked together. It would be more difficult to pump the water below the level of the Coal-pit Heath shaft.

16. *Mr. Lomas.* Is there much coal, to your knowledge, below the particular level you speak of?—I was not in it at the latter end, but from what I hear there is a good deal of coal below that level.

17. *Mr. Proud.*] Is there any solid coal?—No.

18. *Mr. Lomas.*] Is there much coal in the Brunner Dip which is now flooded with water?—Yes; there is a very considerable number of valuable pillars.

19. Have you any idea of the size of them?—They are all big pillars, 60 yards by 16.

20. Can you say how many there are?—They could be counted from the plan. In the lower part of the old Brunner Dip there was not a pillar taken out.

21. How do you account for those pillars being lost?—I could give no definite reason.

22. Is it through flooding?—No. There was no water in the old Brunner Mine of any consequence.

23. You do not know why they were abandoned?—No. The water came up, but the pumps were stopped, and the biggest pump used was a 4 in. Tangye.

24. And they withdrew from those pillars and left them?—Yes. The whole of the pillars in the Dip section are standing, and the pillars from the extreme rise of the workings are taken out down to No. 2 level.

25. Did that let the surface in?—Yes.

26. *Mr. Proud.*] Is it not unusual to work the Rise pillars first?—The Rise pillars were taken out first. The Dip pillars were not driven forward to the boundary. There is a big quantity of valuable coal down there. The most valuable coal-belt in the Brunner lease is the coal between the river and the big downthrow fault. That was cut in in Mr. Martin Kennedy's time to win the coal inside that fault region. The belt will run probably about 20 chains from the river. The Coal-pit Heath and the Brunner Mines are in that belt of coal.

27. Do you think there would be any great difficulty in getting down to these pillars now?—I do not think it would take excessively large pumps to pump the water from the Coal-pit Heath shaft.

28. And is the Dip standing as far as you know?—Yes; the mouth of the tunnel is broken down, but it could be repaired.

29. *The Chairman.*] How do you account for the pillars being taken out on the Rise before the Dip?—Both sections of the coal were being worked at the same time. They were taking the pillars out at the Rise workings at the same time that they were taking coal out of the bottom of the Dip.

30. Was that good mining?—It had a tendency to bring down the water. I understand that at the time Tatley laid on the Brunner Dip he intended to cut the fault-line at the extreme Dip boundary, and work the present Dip workings where the accident happened to the Rise. Instead of cutting the fault where it is now cut in the main level, it was Tatley's intention to cut it down there; but it was fortunate it was not done, because it would have been a complete failure owing to the thinning of the coal-seam, which was afterwards determined.

31. *Mr. Lomas.*] Have you any idea of how many men were working in the Dip when they were withdrawn from those pillars?—There might have been fifteen or sixteen pair of men.

32. What would be the daily output of those men?—15 tons probably from each pair of men.

33. Would that quantity have been increased if they had been working on the pillars?—I do not think they would have increased it, but they could have kept that going for a considerable time.

34. *Mr. Proud.*] Were you ever in the exploring dip for which they got assistance from the Government to drive?—Yes.

35. How did you find the coal there?—There was from 1 ft. to 2 ft. of it—never any more. We ran down that thinning for about 20 chains.

36. *Mr. Lomas.*] Was that the best coal they ever had in the Dip, where the pillars were left?—Yes, that was acknowledged to be the best Brunner coal, and the same kind of coal as found in the Coal-pit Heath Mine. It was from 15 ft. to 16 ft. thick.

37. With a good roof?—Yes, a splendid roof. There was scarcely a prop in the whole of that mine.

38. *The Chairman.*] Why were those pillars left?—When Mr. Bishop came on he changed the course of the dip.

39. What do you understand was the reason for leaving those pillars?—I could not give you a direct answer.

40. Is there any reason why they cannot be taken out now?—They are under water. The water was allowed to rise on them.

41. Could the water have been kept down?—Yes.

42. With the pumping machinery they had?—Yes, I believe it could.

43. Roughly estimate what quantity of good marketable coal you think there is under water?—There might be a quarter of a million tons there.

44. You have heard the statement made that twelve months may see the present Brunner Mine exhausted?—Yes.

45. What is your commentary on that statement as Inspector of Mines?—I might say that I see no difficulty in keeping it going for a couple of years.

46. And then?—There is nothing more except that coal under water.

47. Putting that aside, is there any reasonable chance of any more coal being got out of that property?—Not to my knowledge.

48. A quarter of a million tons of coal is worth how much—say, at 2s. a ton profit?—That would be £25,000. I would not like to say there would be more than a quarter of a million tons.

49. *Mr. Proud.*] Did you ever take note of the coal that came from the Wallsend Mine?—No, except that I know there was a good deal of refuse taken out of it.

50. It was of very fine quality, was it not?—Yes; but it was very much mixed with stone.

51. *Mr. Lomas.*] Did that mine work fairly regularly?—After the amalgamation the management tried to make the workings as uniform as possible.

52. Before the amalgamation did it make good or bad time?—Very bad time.

53. How many days a week?—I remember that at one time they only worked on Saturdays—one day a week. That continued for a very considerable time. It was in Mr. Robert Elliot's time.

54. *The Chairman.*] The Blackball Mine has been working how long?—Five or six years

55. Has it got an efficient plant?—I think so.

56. They have spent about how many thousands on the works?—With the aerial line, altogether, it would cost about £30,000.

57. I understand a big stone drive has been put in?—Yes, of 1,260 ft. That would cost at the very lowest estimate about £1 10s. a foot.

58. Do they appear to have a large quantity of coal in sight?—Yes, coal that will last for very many years.

59. Their output has been about how much per annum?—I think last year it was 80,000 tons. I could not give you the definite amount.

60. How would you describe the coal for marketable purposes?—It is the lowest quality of coal we have.

61. I believe it fetches about 10s. a ton less in Wellington than any other coal?—Yes. They are now driving a crosscut dip. That will extend for a mile and a half.

62. Have they had any particular trouble there?—The only trouble of any consequence is the fire.

63. What do you suppose the fire originated from?—Spontaneous combustion.

64. Is the mine more liable to ignition than other mines in the colony?—Blackball coal is, I consider.

65. Is the mine?—The coal in the mine is more liable to ignition than the coal in other mines.

66. Will that be a danger likely to recur?—I would expect so.

67. Is there likely to be any big difficulty in the Blackball Mine in taking the pillars out?—Yes, I would think so from the nature of the roof. The intervening roof between the two coal-seams is very soft.

68. What does it consist of?—It is a sort of fireclay. A further difficulty in removing the pillars will be caused by the top seam giving way and leaving so much coal behind in the goaf. I do not see that they can take the two seams out. It is too big a height.

69. You speak of two seams: do they lie one over the other?—Yes.

70. The lower one is how many feet thick?—From 10 ft. to 12 ft.

71. And the band?—From 2 ft. to 4½ ft.

72. And then a seam of what?—About a 4½ ft. seam of coal above that.

73. Which would you advise being worked first?—The top seam, and then to bring the roof down. There is no strength in the bottom roof to stand with. It was very difficult to carry that roof in the present solid workings. I cannot see that they could take out the top seam and then work the bottom seam.

74. If they took the top seam out first could they work the bottom seam?—No, I do not think so. They can only take one seam, as far as I can see.

75. Which seam would you advise to be worked—the top or the bottom seam?—I would not like to say.

76. As a matter of fact, they are working the bottom seam at the present time?—Yes.

77. Will they be able to take the pillars out of the bottom seam?—I doubt very much whether they will be able to successfully pillar the bottom seam. A definite answer can scarcely be given, as there will be unforeseen difficulties to contend against.

78. Then, the proportion they will be able to win will be very small to the total amount of coal?—Yes; I look forward to a good loss of coal. The bottom seam is likely to be taken for pillars, it being the thickest seam; but a difficulty arises owing to the probability of fire.

79. *Mr. Proud.*] Spontaneous combustion has to be taken into consideration in working the mine?—Yes.

80. *The Chairman.*] What is the difficulty in taking out the pillars—they are working the bottom seam now?—The roof is the first difficulty.

81. What is the second?—Spontaneous firing. Those are the two difficulties.

82. And you think those difficulties are likely to prove so great as to render it unsafe to take the pillars out?—The question is this: Which of the two coal-seams is it best to take, having regard to the danger of spontaneous firing? The top seem has a good roof, and there will be no difficulty in taking that; but the percentage of coal will be very small as compared with the lower seam.

83. Is there any difference in the quality of the coal?—No. They get a bigger percentage of round coal from the top seam than in the lower seam.

84. Have they worked the two seams?—Yes. They shoot out the timber and drop the top seam. They take out both seams in the present bords.

85. *Mr. Lomas.*] Have they to put timber in those bords after dropping the top seam?—Occasionally.

86. Then, why will there be a difficulty if the timber will stand in the bords?—It would stand better in the bords than in the pillaring.

87. *The Chairman.*] Are they taking out the top seam to the whole extent?—Yes.

88. *Mr. Lomas.*] Do you think the weight on the timbers is due to air operating from the fireclay, or is it due to weight of the roof?—The chief weight on the timber is the fireclay between the bottom and top seams.

89. With regard to the field where the crosscut dip is being put in, has the company thoroughly prospected that field by bores or any other means?—I do not know.

90. From the present indications does it seem to be a good field?—Yes.

91. Do you think it is safe for a mine-manager to go alone to a place where a fire was?—No. I would rather see him take an officer with him.

92. *Mr. Proud.*] I understand they had a good system of timbering at the Blackball Mine?—Yes; it is the best system we have—it is perfect.

93. Should the main haulage-roads be closely timbered?—That depends entirely upon the roof.

94. The Inspectors in Britain are recommending systematic timbering, and the following precautionary measures: (1) A supply of timber to be kept ready for use at each working-place; (2) increased supervision by the mine officials, and stricter enforcement of rules and instructions; (3) use of an appliance such as the "ringer and chain" for drawing timber; (4) systematic timbering and spragging. In other words, the mining engineer should specify for every seam or district of a seam under his control the maximum distance apart at which the props, sprags, and other supports may be fixed in the working-places: do you agree with the Home Inspectors?—Those regulations are at present strictly carried out. Systematic timbering has been strictly enforced and carried out in all the mines, and particularly in these districts.

BRUNNER.

TUESDAY, 26TH FEBRUARY, 1901.

FRANK WILLS examined.

1. *The Chairman.*] You are a miner?—Yes.

2. How long have you been living here?—Between this and Reefton, I have been here during the last twenty-four years.

3. What can you tell us in reference to the coal-mines here?—I have always formed the idea that the district has not been worked on its merits. About five years ago, or a little more, it was worked to suit the interests of the Westport Coal Company. Our reason for thinking that is that they bought out the Tyneside Mine for £9,000 or £10,000 without taking any coal from it, and

then closed it down at a time when we had every reason to believe that it was a very payable concern. About five years ago there was a very big demand for coal, and I formed an opinion myself that there was a possibility of floating the Wallsend Mine as a going concern. I made inquiries among men, and we got all the information possible as to the quantities of coal standing, without reference to other discoveries. I went to Mr. Bishop to ask whether it was possible for us to buy the Wallsend Mine. I understand it was advertised for sale for four or five years, and I asked about the price. I thought there was a very good chance of success, seeing that there was such a demand for coal at the time. In the Coal-pit Heath and Wallsend Mines, in the seam of coal on the bottom, there is a good deal of stony coal, and if that was put out and sold it would spoil all the mines about here. It was put out, and that was the cause of the stoppage. When I approached Mr. Bishop about the purchase of the mine he wanted to know where the parties I represented were, and where they were going to sell their coal if I could make arrangements for the purchase of the mine. I said that I did not get that far in the matter, and it would be for the parties later on to decide where they were going to find their market. I was given to understand by Mr. Bishop that unless I could guarantee that the coal would be taken out of the colony there was very little chance of the mine being sold. I asked him to give me a few particulars in order that I might set the thing going, and he promised to do so; but he was always evasive, and I could never get the particulars. I got a letter from him before the accident took place, in which he said that to give the information I wanted would take a great deal of time, and that before he would do anything he would want the names of the company or gentlemen I represented, not necessarily for publication, but that his company might know whom I was dealing with. He said he hoped we would be successful, and he gave me to understand that unless I was prepared to guarantee that the coal would be taken out of the colony there would be very little chance of our obtaining the mine. I then tried a commission agent and broker in Greymouth, and I believe he has been successful as a promoter of dredging companies since then. We had a good deal of communication with each other, and when he found I could do nothing with Mr. Bishop he tried his best with Mr. Brown, of Westport, who promised to give him the plans; but we could never get any further ahead, and we concluded they had made up their minds not to sell the property unless we could guarantee that the coal would be sent out of the colony.

4. You say that one of the conditions made was that the coal was to be sent away, and not sold in the colony?—Yes; it was not given to me in writing, but that was the purport of Mr. Bishop's conversation with myself. He could have given me all the information I required in an hour or two if he had liked. I feel satisfied that I could have got twice the amount of money which the property has realised since then.

5. *Mr. Lomas.*] Can you give the name of the person who was acting for you in Greymouth?—I have not spoken to him about it; and it was only when I heard that the Commission was coming through that I made up my mind to give any information. The gentleman I was acting with went to Denniston, but failed to get the information. I have a letter here which proves that Mr. Bishop has been talking about the matter. This is the last communication I have received from Mr. Bishop. As miners, we reckon that some amendment should be made in the Mining Act. As far as we are concerned, there has been very little or no prospecting done. There is no clause in the leases granted with reference to prospecting, and I think there should be a certain amount of money put aside for prospecting generally. I think that all the coal-mine owners should be compelled to go to the far end of their boundary and work back, instead of the mines being worked as ours have been worked here. As a matter of fact, the mines here have been worked to suit the convenience of the proprietors without regard to our convenience. Instead of working at the far end and bringing back the pillars, they have worked out to the greatest extent, and broken the roof to the surface and let in the creeks.

6. *The Chairman.*] Where has that happened?—In the Coal-pit Heath Mine. They have let the whole thing come down, and filled it up with water. They could only work in a dry season, and had not the proper machinery to do it, and a great deal of coal in consequence has been lost and not taken out—that is, the pillars have not been taken out. It has been shown on the plan of the Brunner that the coal has been worked out, but I am satisfied that the coal is there, but it has been worked on a slipshod principle. I think the law should be amended so that the Government Inspector would be able to prevent the companies destroying their properties in the way that they have. We working the mines spent our money on homes with the idea that the coal is going to be worked, and we suffer in consequence. Our houses are built out of our surplus, and cost hundreds of pounds, and when we know there is work to last us for a great number of years, and it is stopped, we are not satisfied, and cannot be expected to be satisfied. I should think there would be a great number of years' work ahead in the Brunner Mine, independent of any which might be discovered, if the mine had been properly worked. I do not say that Mr. Bishop was not a capable manager, but consider he has been working in the interests of others. It is not possible for any one to go through these mines and say that they have been properly worked. The Greymouth Harbour Board voted a sum of money to assist in putting down a bore, and the whole machinery has been shifted before the money was spent. They passed through a seam of 18 in., and there is every indication that there is more coal if they came further down. From the inquiries I made in regard to the Wallsend Mine, I say there are at least eight or ten years' work there now without any more discoveries. There is a seam there of 12 ft. in thickness, and I think Mr. Russell has a plan here which will substantiate what I say as to the quantity of coal in the Wallsend Mine.

7. *Mr. Proud.*] Have you been down the Wallsend Mine?—No; but in the other mines I have worked for several years.

8. *Mr. Lomas.*] How much stone is there in this coal in the bottom seams?—I think, in the Coal-pit Heath there is 6 ft. or 7 ft. It is only in certain parts of the seam where the stone exists, and I understand it is the same in Wallsend.

9. Were you working in the Coal-pit Heath when a shipment of coal was sent to Melbourne?—I might have been, but I am not sure. I was working in one of the mines at the time.

10. Do you know anything about the quality of the coal sent away?—No; I remember the time and the circumstances. I had nothing to do with this particular cargo of coal. I have an idea that I was working in the Brunner at the time.

11. At any rate, you have seen a good deal of coal coming out of the Wallsend shaft?—Yes.

12. Was it round coal, or very good coal?—Yes; but I do not think it would compare with the Coal-pit Heath coal.

13. It was softer?—But there was a lot of good coal that came out of the mine, and there is a lot of good coal yet there, I think, from the information I have got.

14. *Mr. Proud.*] Did you take a note of it as it was coming out?—Yes, when it was coming out in the wagons; and, as a miner able to say whether it was bad or good coal, I say it was very good.

15. *Mr. Lomas.*] Did the mine work anything like regular time?—About the average.

16. Did it make as good time as the other mines?—I believe so. In different sections of the mine there are different classes of coal. These mines were all worked together, and some of the mines would be working more at one time than another.

17. *Mr. Proud.*] Were pains taken to screen the coal at Wallsend?—They had screens there, but I do not think they were up to date. There was not enough time to screen the coal before it was tipped into the wagons.

18. There were no belts used then: it was before that time?—No; they just had so-many iron bars so-far apart. If I were a capitalist I would not hesitate to put my money into the mine to-morrow.

19. *Mr. Lomas.*] Is the inspection of the present mines by the Government Inspector satisfactory?—I am not working in the mines at the present time.

20. *The Chairman.*] How long is it since you worked in the mine?—Not since the strike of 1890–91. I would like Mr. Tennent to have a little more power to see that the mines are worked on a proper system.

ROBERT RUSSELL, Mayor of Brunner, examined.

1. *The Chairman.*] You wish to make a statement?—Yes; in connection with our local coal-mine workings. About twelve years ago 1,600 tons of coal went to Greymouth which was supposed to be from Wallsend. It was rumoured that they could not sell it, and that is the reason why the company shut down the Wallsend Mine. It is well known to me and other practical miners that two-thirds of that coal came from the Coal-pit Heath Mine; and when that coal went to Melbourne as a trial shipment it could not be sold, because it was alleged to be Wallsend coal. We took half of our men out of the Wallsend Mine to work that coal in the Coal-pit Heath Mine. The Coal-pit Heath Mine is the best coal that ever left this district. I do not blame the present manager of the Brunner Mine for this, because I think he has got coal we never expected him to get, but I do blame the management in office before he came on the scene.

GEORGE NEWTON examined.

1. *The Chairman.*] Have you any information to give?—Yes. I was working in the Wallsend Mine. At the time the special cargo of coal was got out for Melbourne I was working in the place where this particular coal was got. There was special care taken to screen the coal and to get the very best. I think it was 1,200 tons which was sent away in the "Pukaki" to Melbourne. After the coal had reached there a report was made to the effect that it was no good. It was taken over for gas purposes; and it is an acknowledged fact that there is scarcely a better coal this side of the line than the Coal-pit Heath coal. We know the coal was good, and that there was special care taken to keep it clean. I have heard Mr. Kennedy say that he could sell all the coal in the Brunner at Melbourne, and yet it was said that this particular cargo of coal was no good.

2. How do you account for that?—We can only surmise that there was an understanding between the two companies. In the Wallsend Mine the dip is about 14 chains down, and there is none of that coal worked. The levels are east and west. The dip is at the front on the west side, and the coal is standing 6 ft. or 7 ft. thick. The coal between the faults in the dip is scarcely touched. In fact, the bars are broken away each side of the dip. It was about 10 ft. thick, and the best class of coal in the district.

3. *Mr. Proud.*] You have seen different classes of coal: how would it compare with other coal?—Favourably. The coarse part is at the bottom of the seam, and goes as far as 5 ft. thick. That coal was sent away, whereas it should have been left, and the good coal worked on the top. It was 10 ft. where I worked, and it was all clean coal without any particle of stone in it. That was all standing in the head—that is, 14 chains down the dip.

4. *Mr. Lomas.*] Were they in the habit in the Brunner Mine of leaving that bad coal where they found it?—Yes; always where I was working. I came here nineteen years ago, and there happened to be 5 ft. or 6 ft. left down in the bottom, and we afterwards went on where the coal was clean.

5. Can you give us any information about the pillars left in the Brunner Dip—as to the number and size?—I have not been in the dip for the last two years, but I was working in the pillars after the explosion for about a couple of years.

6. I mean in the dip next the Coal-pit Heath?—They worked the pillars back within about 50 or 60 yards of the main dip on the west side. On the east side they had not worked any of the pillars, and there is a lot of coal there. I know a very large pillar which has never been touched.

7. Are there any pillars right at the very bottom of the Brunner Dip?—A portion of the boundary pillar was taken out.

8. How long do you think these pillars would last if it was possible to get at them?—It would depend upon the number of hands employed.

9. Supposing there were as many in the mine as when they were working the bords?—It might take a couple of years.

10. Can you give us any idea of the output in that particular part of the mine when they were in full swing?—I could not give it from memory. There were about fourteen sets of men down at one time. That would be fifty-six for two shifts; and I think the average would be about 5 tons in the Brunner Dip.

11. Do you think it would last two years with the same number of men in the two shifts?—They could not put the same number in now.

12. Do you think it would be possible to pump the water out?—Yes; but it will take a much larger pump now. If it had been worked out as it should have been they would not have had that water to contend with. It is the same with the Coal-pit Heath Mine. After the Westport Coal Company got it, it stood eight or nine months (the dip) until after the amalgamation, and was not making any water.

13. Is there much coal in the Coal-pit Heath Mine?—They cannot get down the dip, because they have taken out the coal right up the dip. They have taken out the coal, and the water followed them up.

14. *Mr. Proud.*] Were there many pillars abandoned owing to the water rising?—Yes, there were a good number.

GREYMOUTH.

WEDNESDAY, 27TH FEBRUARY, 1901.

JAMES BISHOP, Consulting Engineer, examined.

1. *The Chairman.*] Do you reside in Greymouth?—No; my home is in Wellington.

2. In what year did you first become connected with the Grey Valley mines?—In August, 1882.

3. You then became manager of what mine?—The Brunner Mine.

4. Up to that date who had been in charge?—Prior to my going there Mr. Lees, and immediately before my arrival Mr. Tatley.

5. For how many years prior to that had the mine been working?—Fully twenty years, I think, at that time.

6. When you took charge what was the general state of the mine?—The part to the left of the present main haulage-road was being opened.

7. What was the output per week?—Something under 1,000 tons per week.

8. At that time did the mine appear to have been worked in a skilful and workmanlike manner?—After the work is done one can always see where improvements could have been made; but it had been worked on the bord-and-pillar system, as in England and other parts of the world. The particular area which we called the Brunner Dip—a dip heading—had been driven some 6 or 7 chains from the mine-mouth, and we were then opening what was then known as the Brunner-Dip workings.

9. Had any pillars been taken out?—There were no pillars then, as we were going into the solid coal.

10. That had been opened out in the usual bord-and-pillar system?—Yes.

11. What work did you continue to do?—We worked on until we struck the No. 1 fault.

12. And then what happened?—We took the pillars out on the shaded portions of the map [position explained]. That was the main haulage-road for that particular region. We left pillars standing to protect our level, and to prevent the side of the cliff from falling into the river.

13. You had been warned of this?—Yes. Sir James Hector urged that by taking out those pillars we ran a risk of bringing about a subsidence of the cliff and a probable injury to other parts of the workings.

14. Did you take out all the available coal that could be safely taken out?—Yes; all we deemed it safe to take out.

15. Did you work through then into the Coal-pit Heath Mine?—No.

16. Did you work to the boundary of the Coal-pit Heath workings?—Yes. We deemed it advisable to leave the pillars standing on the deep part of the Brunner Dip as a barrier to the water percolating from the Rise workings to the workings in Coal-pit Heath. It was proved that Coal-pit Heath had got within a few feet of their barrier, and grave danger was feared from water. An amended Act was passed in the Lower House to compel us, in the event of water percolating from our workings, to pay the cost of pumping to another company.

17. That and the other considerations led you to leave those pillars standing?—Yes.

18. When did you cease to work in that section?—I think it was about 1886 or 1887. The whole of the Dip section was abandoned, and became submerged up to the water-level where the water runs into the river.

19. Was there any deficiency in the quality of the coal?—No; the coal left in the pillars was of fair average quality.

20. Roughly speaking, what do you suppose was the quantity of coal left in the pillars in that section?—There might be 100,000 tons of coal there still, roughly speaking.

21. *Mr. Proud.*] Do you not think the barrier was sufficient?—The barrier was amended by Act of Parliament.

22. *The Chairman.*] Turning to the Rise workings, it is marked on the plan as if the pillars had been taken out?—It is not all exhausted, but a large quantity of pillar-working had been done prior to my connection with the mine.

23. Where had they taken the pillars from?—From the fault outwards.

24. It has been alleged that the front pillars were taken and the back pillars left and lost?—A great deal of the Rise area had been removed prior to my taking charge. The plan produced is not correct as showing the pillars are exhausted. There are pillars all over the area. It was essential that those pillars should be left, as the main haulage-road had to be carried through the district.

25. Could they be taken afterwards?—Yes.

26. It is said they are being taken now?—I gather so from what I hear. We used to call this the Rise district, or Coolgardie.

27. When did you leave the mine?—In 1897. We worked up north-westerly until the coal thinned out, and we put in a prospecting-drive 13 chains further north-west in continuation of the main haulage-road, but we found only traces of coal. There was nothing workable. Up to the time I went away sufficent pillars were left to support the main haulage-road, and a strong rib was left to support the western side and to prevent the percolation of water. The pillars on the eastern side have all been removed, and the haulage-road closed. I opened the fault dip and drove it to a thinning again, which you took to be the same thinning we found in the Rise district.

28. Did you take the pillars out there?—They were taking the pillars out when I left the mine.

29. Do you know anything of further subsidised prospecting?—We carried on prospecting-works for some time. We thought that, although we had not been successful, it might be possible we could get through and find coal to the Dip.

30. As a result of that system of working, has any coal been lost?—I do not consider there has been any coal lost that could have been won in that area.

31. It has been alleged that "the Brunner has met with the same result as the Coal-pit Heath—it has been robbed. The coal has been taken out where it should not have been touched, and the fact is that we are now getting solid coal in parts that were abandoned." What have you to say to that?—You could get a solid bit of coal, a pillar or two, almost anywhere, without it being solid country. It was in consequence of the exploration we did in 1884 that we got through the No. 1 fault, and got all the coal contained in the area known as the fault workings and fault dip. That is what kept the mine going, and has kept it going up to the present day.

32. Do you know anything about the Wallsend Mine?—Yes; I took charge of it as general manager of the Grey Valley Coal Company in 1888. Prior to that I had been manager of the Brunner Mine only for Mr. Kennedy.

33. Previous to that who had been running the Wallsend Mine?—The Westport Coal Company, first under Mr. Harrison, and then under Mr. Elliot.

34. When you took charge in 1888 what was the condition of the mine and works?—The mine was fairly well opened on the bord-and-pillar system.

35. Was the mine fully equipped with machinery?—Yes, with a very fine plant.

36. In round numbers, what would you consider had been spent on the mine?—I think they paid £20,000 for it to the old company. The Westport Coal Company bought it from the Greymouth Coal Company (Limited), or the liquidators of it. The Westport Coal Company spent from £60,000 to £80,000 in sinking a new shaft and fully equipping the works and opening up the mine.

37. When you took charge it was capable of an output of how much?—1,000 tons a day. The works were capable of doing that, but only about 200 tons a day were actually got for about two days and a quarter a week only. The average time the mine worked for the twelve months prior to the stoppage was eighteen hours a week.

38. Why was that?—Want of trade.

39. Why was the trade bad with regard to Wallsend?—There were three mines together going, and the Brunner and Coal-pit Heath coal was favoured, while for Wallsend coal there was only a very limited demand. There were only certain lines of trade that it could be sold to.

40. In what respect was the Wallsend coal inferior?—It was much more stony, not easily cleaned, and very much softer.

41. Did you send a shipment to Melbourne?—We sent a shipment to Melbourne, I think, just prior to the amalgamation. That shipment went from Coal-pit Heath.

42. Did you not send a shipment from Wallsend?—I do not know that we did. I think it was the Coal-pit Heath Company that supplied that shipment. There might have been some Wallsend in it, but I think not.

43. Did you use Wallsend to mix with the coal at Brunner?—It was not mixed in any way at the mine, but may have been mixed in the ship. I do not think it was, because there was too much care taken in order that it might not injure the trade in coal from the other mines.

44. How long after 1888 did you continue to work the mine?—Up to the end of 1890.

45. Averaging how many hours a week?—Eighteen hours for the last twelve months.

46. Do you say that was in consequence of the want of trade, or in consequence of any desire to stop the working of the mine?—There was certainly no desire to stay the working of the mine, because a mine worked on that system could not hope to make anything. The only chance was to work it vigorously.

47. Was it worked at a profit after the amalgamation?—It was worked at a loss.

48. Why was the mine closed in 1890?—We had an arrangement with the proprietors of the Taylorville land to work their coal under a royalty, and in exploring in that direction we struck what was an unknown fault running up in a slightly north-east direction. The levels struck the fault, which effectively prevented our extending in that direction unless we spent a considerable sum of money, and the Westport Coal Company's engineer was sent down to consult in the matter. The estimates showed that from £8,000 to £12,000 was required to prospect it, and in the then state of trade it was considered that, unless we could get the owners of the Taylorville land to

suspend their rents, the company would not be able to see their way to further extend the prospecting. Then there was the labour trouble at the end of 1889 and 1890, and it was decided to close the mine and take the whole of the trade to the mines on the other side of the river.

49. What was done?—They withdrew all the loose plant inside the mine and stopped working the mine.

50. What did they do with the surplus plant?—That was sold as purchasers came along, and was sacrificed.

51. Do you know a Mr. Wills?—Yes.

52. Did he approach you with an idea of purchasing the mine?—I do not think so. I do not know of any offer to purchase the mine.

53. Did you not write him a letter in reply to something from him?—He may have written.

54. How was the plant sold?—There were advertisements put into the newspapers describing the plant. I believe there was a communication from Mr. Baxter, and probably Mr. Wills was connected with that.

55. They asked you for information about it?—Yes.

56. And apparently you declined to give the information unless they disclosed their principals?—There might have been some correspondence to that effect. The whole thing was put before the company, and Mr. Kennedy was managing director. I am not quite sure whether there was not some correspondence with Mr. Baxter, but I do not know what it was.

57. The result was that this mine, with all its valuable machinery, was shut down?—That is so.

58. Is it under water?—Yes. There is about 600 ft. of water in the shaft. The shaft is 670 ft. deep. The area of coal available from the workings then open was exceedingly small. There was only a small triangular piece of coal available owing to faults. Looking at the plan, it was found between these three faults—viz., the north and south faults and the fault crossing the river from east to west. The area was so limited that, after consultation with the engineer of the Westport Coal Company, we thought it was scarcely safe to open out in this region, as we should ruin our shafts. We wanted to get into our workings in the north-west, to work out there and leave it to the solid. There is a danger, if any one works there, of it breaking down.

59. Mr. Russell says there is a splendid seam of coal there 12 ft. thick?—It is not marketable alongside the other coal leaving the West Coast at the preset time. It is all crushed and approaching another fault.

60. How long did the maritime strike last?—Several weeks.

61. Was that the approximate cause of the mine closing?—No, but it was one of the influences. Any trade that the Wallsend Mine was getting was robbing the other two mines.

62. Was there much demand for coal in 1890?—Not nearly so large as it has become since, because the frozen meat industry had not been developed to the extent it has since that time.

63. Do you think that at the present prices obtainable the Wallsend Mine could be worked?—I should certainly not recommend anybody to open it for purpose of working coal now in sight; any one opening this mine must be prepared to expend capital in proving faults.

64. What was the structure and texture of the coal?—It is very varied. You have soft and hard bords alternately, and the nearer you get to the faults, as a rule, the softer the coal becomes. There are considerable jumps and rolls, and we had the level changed every two or three weeks.

65. It is said that on the western side it is in some 10 or 12 chains?—It is probably 4 chains, according to the plan, not 10 or 12.

66. It is said that it is standing on a fault: that is because of the down-throw, I suppose?—Yes.

67. Was anything done to test whether that fault was serious?—The only method of finding out what the dislocation was, was to make comparisons of strata in shaft with those on face of fault, and we made it out to be a downthrow to the north-west to about 200 ft.

68. What was done in the way of attempts to prove those faults?—Nothing was done in the Taylorville fault.

69. Do you say the chief reason why the mine was closed down was the unsaleable quality of the coal?—That is one of the reasons, and the unsatisfactory fact that the coal known to be there was surrounded by the faults which had been discovered.

70. When you were working the Wallsend Mine was any instruction ever given to you to diminish the quantity of coal that could possibly be obtained from the mine?—No.

71. Did you ever understand that it was a mine which was held in disfavour, and that its output ought to be checked?—No, excepting the quality of the coal being inferior had a prejudicial effect on sales.

72. Had you any idea yourself that there was any desire on the part of the owners to prove the thing a failure?—I am perfectly certain there was no such desire.

73. You earnestly say that you desired to do all things possible to make the company a success?—I am perfectly certain the Westport Coal Company, having put £100,000 into that mine, and endeavoured to get it back. They worked it for some years at a positive loss.

74. *Mr. Proud.*] Was it not a very superior gas-coal?—Yes, there was excellent gas in it; but you must also have clean gas-coal. It is not sufficient to say a coal will produce a good gas; you must have the gas purified. That was our difficulty; we could not sell it as gas-coal owing to the amount of impurity.

75. Would it do with the means available now?—The same were in use then as now.

76. You had not coal-cleaning belts in those days, had you?—They are as old as I am. I was using a coal-cleaning belt at the Brunner Mine when I was there, but we had not enough trade to warrant adding to the Wallsend plant. The demand for gas is limited, and you cannot get every one to come to Wallsend unless it is superior to other coals.

77. How many thousand cubic feet did you get in return per ton?—We probably got 11,000. We got 11,000 ft. to 13,000 ft. from Brunner coal, and the same amount from Coal-pit Heath.

78. Is it not the same coal as the Coal-pit Heath?—Yes, it is the same seam, but you will find sometimes that a dislocation produces a very serious difference, and in the Wallsend the coal on all sides is seriously affected by faults.

79. *The Chairman.*] I suppose if the mine were in the same state as it was in 1890 with the present prices, it would pay to work?—I do not see that it would. You could not get people to take that coal. People going into that mine have to face this particular point, that they will have to find a field.

80. *Mr. Proud.*] But if you proved those faults you might find a field?—People do not generally go into a mine to prove a fault.

81. That is done in working a mine?—Yes. The Westport Company had spent £100,000 on that mine, and had not been able to find enough to pay for grease in the way of profits. The coal trade at that time had got into this position, that there was only a certain amount required to supply New Zealand. The Westport Coal Company and Grey Valley Coal Company got half the trade, and the other companies got the balance. Newcastle sent us about 120,000 tons, and we could not get any more trade. The Westport Coal Company got into good coal, and while they increased their output, the demand for Grey coal diminished.

82. Was there not a good demand in Melbourne for coal. There may have been a good demand, but we could not compete with the New South Wales mines. Melbourne capitalists, it was said, were interested largely in the Newcastle mines, and the freights were so light from Newcastle to Melbourne, as compared with the freights from New Zealand, that we could not compete. The freight from Newcastle was probably only 5s. a ton, and we could not get freight at 5s.

83. I understand that the stone was at the bottom of the mine?—There is stone nearly all the way through it.

84. If the bottom had been left, do you not think you could have got clean coal in the other parts?—The stone is different here to what it is in England, where it is in a band.

85. *Mr. Lomas.*] Did the coal from this mine damage your other sales?—It did not come under my observation; but I know that to have mixed that coal would have been suicidal.

86. Did you increase your output from the other mines when you closed the Wallsend Mine down?—Yes.

87. *The Chairman.*] Did you work the Tyneside Mine?—Yes; we took a little out of it.

88. Why was that not worked?—It was of an inferior quality, and we could not get people to take it while we had really good coal at Coal-pit Heath, Brunner, and other places.

89. In 1888 you also took over the Coal-pit Heath Mine, one of the amalgamated companies' mines?—Yes.

90. How did you work that?—We continued to carry on the Dip heading, and drove the workings to the fault (No. 1 fault). We took the pillars out of the large portion, but we did not take the pillars out as shown on the plan, facing the river, on account of the danger which might have arisen through the mine-cliff subsiding. There was a survey made to see whether the mine was not subsiding, as the water was coming down from the surface.

91. Do you consider all the available coal was taken out?—There is still some that can be taken out of the Coal-pit Heath Mine. Some blocks of inferior quality had to be left. There is a class of woody coal there which is bad for the miners to work, and which you could not burn if you got it.

92. You closed the mine down when?—About 1894. We withdrew the machinery, but before doing so we had connected the mine with the Brunner drive, and drew the coal through out of the Brunner loading-stage.

93. What were your main reasons for closing the mine down?—We had practically taken all the coal that it was safe to take, looking to the future and what we might have to do.

94. Then, if you had worked those pillars you might have rendered the north side unapproachable?—Yes; and we might have injured the Wallsend Mine seriously by causing water to percolate through the barrier.

95. Had the Coal-pit Heath Mine been unprofitable?—Up to the time of the amalgamation it may be said to have been a losing concern all along.

96. And after the amalgamation?—The old shareholders got their money back, I think, in the sale, but in working the mine they had made nothing.

97. Did the mine pay after the amalgamation?—I think there was a little money made on both the Coal-pit Heath and the Brunner Mines, because there was a removal of what was at one time a serious competition between ourselves and the Westport Coal Company. The Westport Coal Company coming in with the Union Company as owners and amalgamating the three mines was a decided advantage, and in certain matters of contracting. The Westport Coal Company, being interested, did not compete with the Grey Valley Coal Company. We had the whole of the New Zealand Shipping Company's contracts, and that was partly the reason why the Westport Coal Company did not compete.

98. As a whole, has coal-mining been a profitable investment in the Grey Valley?—I do not think it has, taking it right along.

99. Taken in the aggregate, would the account stand to profit or loss?—I think it would be a loss.

100. You say there is absolutely nothing in the suggestion that there was any intentional shutting down of the Wallsend and Coal-pit Heath Mines in order to benefit the Westport mines?—Not at all. There was nothing of the kind.

101. Do you think that any further coal could be got by boring?—Yes; I think it is highly desirable that the field should be bored. I think Taylorville should be bored, and also the western portion of the Brunner lease beyond the line of exploration. It is highly probable also that there is a field of coal on the Dobson Flat.

102. Do you know how Taylorville came to be freehold?—I have been told that it was bought by Mr. Taylor's father.

103. Was it known to be coal-bearing?—Yes, I think so. Mr. Taylor was one of those who opened up Coal-pit Heath.

104. Would you make any suggestions as to the policy of selling coal-bearing lands?—I do not think any land should be sold which is known to be coal-bearing. The State in all such cases should retain the right to the royalty on the coal, and they should provide for access to be given on payment for surface damage. That is the law, I believe, in Germany, Austria, and amongst Continental peoples generally.

105. *Mr. Lomas.*] Who owned Coal-pit Heath at the time of the amalgamation?—The Coal-pit Heath Coal Company. Mr. Williams had bought the interest of Mr. Coates, of Greymouth; then there was Mr. Taylor and Mr. Nancarrow—who was the agent—and several other local people.

106. Who bought it from Mr. Williams?—The Union Company bought Mr. Williams's ships and mine, and that brought about the amalgamation.

107. The Union Company held one quarter?—I understand the Westport Company held a half, the Union Company a quarter, and Mr. Kennedy a quarter share. The Union Company took Mr. Williams's ships and the Koronui Mine.

108. *The Chairman.*] What is to be done in order to revive the coal-mining industry in this district?—There is Seven-mile Creek lying partly developed. That is one spot.

109. What do you say about a geological survey?—I think it is very important indeed that there should be a complete geological survey. The industry has been very much neglected in that respect. The sending down of an officer to make an examination in a certain direction for a day or two is of no particular value.

110. *Mr. Lomas.*] Do you consider that any geological survey would be complete without borings?—It would be for the man in charge of the survey to say where, in his opinion, borings should be made. His surface examination would probably reveal something to guide him. I think there are certain places that should be bored, such as Dobson, Taylorville, and west of the Brunner, and the fields that are now lying partly developed should be proceeded with.

111. *The Chairman.*] Were you at the Brunner Mine at the time of the accident?—Yes.

112. From your experience as a mine-manager, have you any suggestions to offer as to alterations and amendments required in the law relating to coal-mines, or the regulations made under it?—I do not know that I have. I believe that the Act as it stands is a very good Act indeed; and I think if the workers in the mines will exercise their powers under it they will find it a very good Act.

113. Have you found the inspection by Government officers efficient and satisfactory to yourself?—Yes. I do not mean to say the Government give their Inspectors their money for nothing. I think they might give them more help sometimes. The Inspectors have plenty on their shoulders, and with assistance their inspections might become more frequent.

114. Do you think there is a sufficient number of Inspectors?—I am suggesting that possibly there are not now, as their work has largely increased.

115. *Mr. Proud.*] Do you consider the duties of the Government Inspectors should be simply confined to inspecting, without regarding the Government as the lessor? Would you not regard him as a check viewer, as in the North of England?—I do not know how his duties are defined under the Act; but beyond them it should be his duty to see that the Government is protected, and when he sees anything wrong he should stop it.

116. In the same way as a check viewer at Home?—No; I would not make him a check-viewer. You may have an excellent Inspector who is not an surveyor.

117. On the other hand, you may have an excellent surveyor who is not a competent miner?—Yes, that might be. The difficulty might be got over by the Inspector being given assistance. I think it would be quite foreign to an Inspector's duties to have to go and make a check survey, because it is a mechanical operation that requires a surveyor, and he requires to be a certificated surveyor for his evidence to be accepted in a Court of law. There is another reason why it is not so necessary to have check viewers here as in England, and it is the fact that all coal raised and sold by shipping passes over a weighbridge under the control of the Government; so that in such cases they have a very efficient check as to quantity. As regards improper methods or waste, it is right the Inspector should take cognisance.

SIR,— 27, Lambton Quay, Wellington, 18th May, 1901.

In re sale Wallsend Mine to Mr. Wills: I understand it has been suggested that the reason for failure of Mr. Wills's negotiations is due to my having insisted on the purchasers finding a market outside of New Zealand. If such a suggestion has been made, I may state that anything I may have said in this connection went to show the difficulty then existing in finding trade for mines then working, and at that time (1890 and 1891) there seemed nothing for it but to find outside markets. I certainly did not intend such a statement to be taken as a refusal to negotiate.

In conclusion, I am confident that the Grey Valley Coal Company would have been pleased to have sold the property at any time, either before or after the stoppage.

Hoping you will find this explanation of service.

I have, &c.,

To the Chairman and Members of the Coal Commission, Wellington. JAMES BISHOP.

SOUTHLAND DISTRICT.

NIGHTCAPS.

MONDAY, 11TH MARCH, 1901.

ROBERT DUNN, Miner, examined.

1. *The Chairman.*] You have worked in the mine for how many years?—Twenty-five.

2. Do you appear here as an official of the Miners' Union—No; I am in the association, but I do not appear as an official.

3. Do you wish to make any statement to the Commissioners?—Yes. In connection with the Nightcaps Colliery, I wish to say that it is as pleasant a colliery as any one could walk round, and as comfortable as any miner could wish to work in. I say that after having wrought in Scotland, Queensland, New South Wales, and New Zealand. I have been in the mines since I was twelve years of age. With regard to the Coal-mines Act at present in force in New Zealand, I wish to state that I would like to see the airways next to the working-faces not more than 30 yards, and that a miner should only be called upon to keep himself free from his working-face a distance of 5 yards; and that where the return airway is more than 30 yards from the working-face, and shooting is taking place, it should be bratticed up to within 10 yards of the said face; and where there is no shooting being done, it should be bratticed to within 5 yards of the working-face if over the aforesaid distance. My reason for wishing this is that I do not think the management should be held responsible for men if disabled close to their working-faces, because the management is not working at the face; neither should the miner be asked to examine all the length of the roadway that may be made for twelve months, and to keep that safe also. The present Act, so far as I can see, does not define the distance where the return airway shall be from the working-face, and there may be 300 ft. of air travelling, perhaps, 4 to 8 chains from the working-face, while it will not enter and go round that working-face, sweeping round its course undiminished. The Act of New South Wales provided that it should run 35 yards at one time, but that has been decreased since from cut-through to cut-through—that is, from the airway to the working-face. These are the two main points I wish to lay before the Commission in connection with the required amendment of the Mines Act—namely, to state the distance the miner should be required to secure his working-face, and the nearest cut-through to the return airway to be not more than 30 yards from the working-face. The minimum amount of ventilation defined is 100 cubic feet. Well, the workings are so high, and there is much shooting done that, in my opinion, it is inadequate, and should be 150 as the minimum amount of air per minute travelling round. The velocity of the air in a narrow working-place is greater than it would be for the same amount of ventilation in a high and wide working-place. I believe that when Mr. Lloyd fixes up the furnace he has at present, the ventilation in the mine will run between 500 and 1,000 cubic feet per man per minute for the number of men employed there at present.

4. *Mr. Lomas.*] At present you consider it is fairly satisfactory?—Yes. An adequate amount of ventilation is there, and a good deal more.

5. *Mr. Proud.*] Do you want the air carried up the face by brattice?—Yes. That is where the last airway is more than 30 yards from the working-face. The place I am working in now will run about 7 chains from the last return airway, and then a fan is erected to drive the air into the working-face to keep it clear. The amount of air that is travelling through that runs about 700 cubic feet, and the velocity was 1,700 ft. according to the Inspector. I did not examine it, but I took it to be that by examining it with an animometer on a previous occasion. By putting your hand to it you can give a guess. It takes all that to drive the smoke clear of the working-face.

6. The place being so large, the velocity is so much the less?—Yes, with the same amount of air.

7. *Mr. Lomas.*] What reasons do you give for wanting the brattice put within 10 yards of the working-face where you are blasting, and only 10 yards where you are not blasting?—If nearer to the working-place the blasting would destroy it. The brattice is 5 yards from the working-face in New South Wales.

8. Does it require the air to be nearer where powder is being used than where it is not being used?—Yes.

9. Your only reason is that the brattice would be destroyed by the firing of shots?—Yes; so that the brattice shall be as near as possible when it goes over the required distance to the last airway.

10. *Mr. Proud.*] You mentioned that the crosscut, being 30 yards, they should brattice up the face, which might be any distance?—I said that if it was more than 30 yards, then it should be bratticed up to the face.

11. *Mr. Lomas.*] Do you consider the mine a safe one to work in?—Yes, as safe as any I have been in.

12. Would you prefer to set your own timber in the working-face than to have any one set it for you?—If I could get my timber set for me the job would be all the easier for me.

13. Would you be better able to judge of what was needed in your own working-face, in the shape of timber, than a man who did not work there, but was only employed to set timbers?—Yes.

14. Simply because you would know the ground better than any outsider?—Yes.

15. *Mr Proud.*] Do you not think a man who has been brought up to timbering could form a better opinion of what was required than a man merely working the coal?—A man always timbering would be smarter at it than a man only timbering once in six months.

16. *The Chairman.*] But he might not be the best judge as to where the timber was required?—No.

17. *Mr. Proud.*] If a deputy is continually in and out among the men he must see what is required, and, being a more skilled man than an ordinary coal-miner, would he not be the better judge?—In some cases he would.

18. *Mr. Lomas.*] Would you consider that a man who does nothing but set timber would know as much about the nature of the ground?—If he was a practical miner, in the first instance, and was then employed setting timber, he would know all about the nature of the ground, and would be equally capable of judging.

19. Because he is a miner?—Yes; but it is advisable that a miner should secure his own working-face, as a deputy could not always be present.

20. *The Chairman.*] What wages are you able to make in this mine?—At present we make 12s. a day.

21. Are you satisfied with that?—Yes.

22. What are you getting per ton?—3s. 10½d.

23. Is that because you have to drag the coal further?—No; it was a contract tendered for and let.

24. You got the contract for how long?—For 10 or 12 chains or eleven or twelve months.

25. You have been at it how long?—This is the seventh month.

26. And you have averaged 12s. a day?—12s. to 14s.

27. How does that compare with the previous years during which you have been here?—It is much better.

28. Are most of the men in the mine doing as well?—No.

29. How much worse off are they?—When they are working they can always average 10s., they say, on working-days.

30. Is there much enforced idle time in the mine?—No.

31. Can they work when they choose?—No; they have to work when the trade is there for them.

32. Is the trade pretty constant?—They get about twenty days a month.

33. They average about £3 a week?—In good times. In the dull months of the year they do not.

34. Taking it all the year round, what do you say they average?—I do not suppose they average much over £2 10s. a week.

35. How many hours do they work in a shift?—Nine hours in the mine altogether, with an hour for dinner out of that—that is, eight hours work per day.

36. *Mr. Proud.*] Are your rules for cavilling satisfactory?—Yes.

37. Then, you have not had a case before the Conciliation Board?—Not yet.

WILLIAM HANDYSIDE, Managing Director of the Nightcaps Coal Company (Limited), examined

1. *The Chairman.*] Have you held your position long?—Twenty years.

2. Since the establishment of the company?—Yes.

3. What is the capital of the company?—£24,000, all paid up in cash—*i.e.*, capital, £20,000, and £4,000 or more spent in addition to it.

4. The property consists of what?—There are over 500 acres of freehold owned by the company at Nightcaps, including our railway-freehold from Wairio to Nightcaps, with sidings, about three miles long; and a small lease of between 14 and 15 acres held from the Crown; also about 350 acres freehold at Hokonui district, not worked at present.

5. You commenced operations about 1880?—Yes.

6. You have put out in round numbers altogether, about how many tons?—I think it is between 250,000 and 300,000 tons.

7. May I ask if it has been a remunerative investment to the shareholders?—No, it has not.

8. What return have they had?—Three dividends in twenty years, of about 6 per cent.

9. I suppose there is no reserve fund?—There is a little—about £500.

10. The coal is classed as what?—A brown pitch-coal, very similar to the Kaitangata, Shag Point, and Allendale coal.

11. Where do you chiefly dispose of it—at the pit's mouth, or at Invercargill?—We sell it on the truck here at the pit-head.

12. What do you get for it?—10s. 6d. a ton, and nuts 6s. 6d., but it varies. The Government have been getting it cheaper than any one else.

13. What is their price?—7s. 1d. per ton, but during the contract the union sprang upon us a demand for higher wages. Our contract does not expire till the end of this month, and in the middle of it they wanted more wages, which they will likely get.

14. Have you any agencies in Invercargill?—Yes, the coal merchants retail it. We sell it to dealers. We have no distributing-yards; we had at one time, but the trade did not like it. They do not get very fat on it.

15. Do you know what the retail price is?—I think there is a margin of about 6s. a ton in truck-loads until it goes into the consumer's house. There is cartage and baggage and bad debts to come out of that, also waste and booking and weighing. We are handicapped as against Otago proper, owing to firewood being cheap and plentiful, also inferior lignite in Southland, and the raisers of both paying low wages compared to us.

16. What is the railage rate to Invercargill?—4s. 11d. per ton.

17. Do you pay any royalty?—None, except for what we get out of the Crown land. We pay an equivalent in the cost of the land originally. We had to pay very stiff for that, and the interest is equivalent to a royalty.

18. What is the retail price at Invercargill?—I think it is £1 0s. 6d. or £1 1s. per ton.
19. What is your monthly output?—It averages from 25,000 to 30,000 tons a year.
20. How many men have you employed?—An average of between fifty and sixty.
21. At what rate do you pay them?—Different rates. They are mostly on tonnage.
22. What is the rate per ton?—From 3s. 6½d. to 3s. 10½d. It depends upon the place they are in.
23. And the truckers?—We have no truckers. The men have to work inside and outside.
24. What do those on day-wages get?—From 4s. for boys, to 8s. and 8s. 6d.; blacksmith and fireman, 11s. 6d. each; engine-driver, 9s. 6d.; miners on day-wage, 9s. 6d., now to be raised to 10s.
25. During the twenty years you have been managing the company, have you had any difficulty with the Inspector of Mines?—No. I think we flatter ourselves we get on pretty well with the Inspector all through; but the Inspector has been changed pretty frequently, and we have never had any one as Inspector very long.
26. Have you had any trouble with the men?—Not until three or four months ago. As I said to you to-day, we were a happy family until they formed a union, and then the trouble began.
27. What troubles?—Their demands, and so on.
28. Have you been before the Conciliation Board?—No; they have not got that length yet. I told them they would have to go before the Arbitration Court.
29. What are the men asking for?—The same as Oliver Twist, they are asking for more.
30. What is about the fortnightly pay per man per month?—Some miners get from £12 to £15 a month. It depends upon the man. Sometimes they may be working all through the month, but it depends upon trade whether they work full time or not.
31. Have you had any difficulty with the mine in regard to ventilation?—Not until recently. I believe there was a complaint from one man to the Inspector about ventilation. The Inspector came up here, and I suppose his report will be available if you want it.
32. Have the company done all they could to meet the case?—They have, in putting an air-fan and air-pipe into the mine, and you cannot put them in in a day or two.
33. When was the fan put in?—In November. The ventilation is by a furnace, and is capital.
34. Do you say the only trouble you have had has been for the rate of pay?—Just making demands generally. One demand was to have all the coal weighed, which is impossible.
35. Do you know what the men can earn per day at 3s. 6d. per ton?—It depends upon whether they are working full time or not.
36. Is there anything you want from the Commission except to be left alone?—We do not want anything, so far as I know.
37. Have you found the working of the Mines Act and regulations at all difficult to comply with?—I am not aware of anything wrong. We always get on very well with the Inspector when he is here.
38. Touching the question of weighing the coal, what is to prevent the coal being weighed?—The coal comes out in 7 cwt. boxes, three to the ton, and it would be a great deal of trouble to weigh every box—in fact, impracticable to get through the day's work. Then, there is the weigh-bridge here, over which the trucks come, and that is available to the men at any time. It would take too much time to weigh every box, and the thing would not run it.
39. Do you screen the coal?—Yes.
40. Have you any sale for the screenings?—Not much for the very small stuff.
41. *Mr. Proud.*] How much do you waste of the produce of the mine?—The mine-manager says it is 5 tons in 50.
42. Is not that a great loss of coal?—The small stuff in the coal here is very different to the small stuff at Westport.
43. I see that you are making roads with it?—That is with the very small stuff. It does not fuse together like the Westport or Greymouth coal.
44. *The Chairman.*] I suppose you do not waste anything that you can sell at a profit?—No.
45. *Mr. Proud.*] I observe that you use gripes to let the small coal pass through?—Yes, we call them "harps."
46. Is there no fear of spontaneous combustion?—Not unless you leave too much in the mine. If you left a large quantity in the mine, there would be a danger of that.
47. I noticed a large quantity there?—There is not a large quantity. There is nothing so dangerous as fire, of course.
48. *Mr. Lomas.*] Can you dispose of the slack if you put it on the market?—Many years ago the railway carried the nuts and small stuff at a lower rate than the coal, but I am sorry to say a section of the public took advantage of it, and they consigned the coal as small stuff to evade the higher rate.
49. Did they cover it up with small stuff?—I believe they did. In consigning the round coal as nuts and small coal they were cheating the Government, and in consequence the Government ceased to make any difference in the rates.
50. *Mr. Proud.*] If you made nuts and peas, do you not think you could dispose of some of it?—We sell nuts now, but the haulage-rate on nuts is the same as on coal.
51. Do you not think it is a great loss of coal to have all that wasted?—Yes. It is only that small stuff that is not saleable, because it is only brick-kilns and similar industries that can use it. The Westport or Greymouth coal all fuses together no matter how small it may be, but the household consumers do not like it.
52. *Mr. Lomas.*] Do you know whether the local dealers have much difficulty in disposing of their slack?—I think they have. When a man keeps a shed for his coal there is bound to be a lot of slack accumulating after a time.

53. *Mr. Proud.*] The coal is very much damaged by the weather: do you not think it should be protected in some way?—You could not do it very well. It would be far too expensive.

54. *Mr. Lomas.*] Do they not put it into sheds?—Yes, but they get it from day to day. Nightcaps coal seems to stand the weather very well.

55. *The Chairman.*] What objection is there in Invercargill to this coal?—Kaitangata coal is favoured as a household coal because it lights quicker and blazes more.

56. Is there no imported coal used?—Yes, there is Newcastle coal, but the prices are very stiff.

57. You have to compete against Newcastle, Westport, Greymouth, and Kaitangata coal?—Yes. If we could sell it for nothing there would be always a certain amount of competition. People will have what they want, and coal-dealers keep everything they can sell.

JOHN LLOYD examined.

1. *The Chairman.*] You are mine-manager of the Nightcaps Mine?—Yes.

2. And have been since the opening of the mine, twenty years ago?—Yes; twenty years the 1st of next month.

3. Will you give us the position of the mine as regards the system on which it has been worked, the condition of it, and how it was opened out?—From the mouth of the mine to the far level it will be about 32 chains, all through solid coal.

4. Is that the level we entered?—Yes; and down that dip.

5. The seam has a thickness of about how much?—It runs from 7 ft. up to 15 ft. in the seam we walked through. There is a level branching off from that to the engine which will be about 7 chains in length, and from No. 2 level to the outcrop (as far as I have driven is about 6 chains), it is about 10 chains. From the mouth of the mine to the outcrop to the left it will be about 12 chains, but it gets narrower as you go north.

6. Most of the coal is good solid coal of its class?—Yes.

7. But it has certain defects?—It is due to the greasy backs, which are very bad for about one half of the mine.

8. Is it broken or crushed by much stone in it?—Yes, and there is not much of it. It is patchy.

9. How much coal have you?—We have about 40 acres of a 9 ft. seam, and a 17 ft. seam extending all over the 40 acres.

10. Supposing you were able to rival the Westport Company, and put out 250,000 tons in a year, how far would that decrease the quantity of coal in sight?—Twenty-five years would give it a big shaking.

11. Would it take twenty-five years?—Yes, because there are two seams.

12. Then, as far as quantity is concerned, you have no fear?—No. Of course, the coal is very patchy. It looks very good in its place, but it is not, although some of it is better than Kaitangata coal. What spoils our trade is that a person may get a truck or two of good coal, and then another one of inferior quality.

13. The demand for your coal is not nearly so great as what you can supply with your present appliances?—No. I could, with the present appliances, put out quite easily 70,000 tons a year.

14. Have you any difficulty with water?—No.

15. Do you pump at all?—Yes.

16. Where from?—From the dip to the right of the engine you saw in the mine, parallel with the other dip.

17. For how many years have you depended upon natural ventilation in the mine?—Only for some six months have we had artificial. I had a furnace up until about six months ago for ventilation. Now we use a fan and air-pipe and upcast shaft, and a furnace which will be completed in about a week.

18. Has there been any difficulty about the ventilation?—Yes; the air has not been good.

19. For how many years?—Only for the last three or four months.

20. Why only for the last three or four months?—Because it was naturally ventilated. I put the furnace to work, but knocked it off about six or seven months ago because it had no power in it.

21. How long had that state of affairs existed?—I worked the furnace as long as it had power.

22. Did it cease to have power because the drives were further in?—Yes.

23. How long has the ventilation been bad?—It has not been satisfactory for the last two months.

24. Prior to that it was all right?—Yes, it was good.

25. Did you find the air was better without the furnace?—Yes.

26. How do you explain that?—Because the furnace was in a wrong position when I got ahead, and I sank a shaft where the engine is. Then I sank a second shaft to get the snatch at work to the highest point. The higher you can get your furnace or snatch the better the ventilation.

27. *Mr. Lomas.*] Was it owing to the fact that all your workings were on the rise side of your upcast shaft that the furnace would not work?—Yes; and through there being so many openings in the outcrops the one worked against the other.

28. *The Chairman.*] Have you known any one in the mine to be affected through the want of ventilation?—No. With the exception of what I have said, the air is really good. We use a lot of powder.

29. *Mr. Lomas.*] How much powder do you put in for one shot?—1 lb., and sometimes 2 lb.

30. Have any complaints been made by the men about the bad ventilation?—None of the men ever made a complaint to me. The simple reason is that they knew I was doing all I could to put the ventilation right.

31. Has there ever been any sign of fire in the mine?—No. I was troubled very badly with black damp in a small mine-working here a few years ago. A lot of black damp used to come off the fireclay there.

32. Have you had any accidents?—None, except the one about four months ago.

33. Is that the only one for the last twenty years?—There has been only one fatal accident, and no other serious accident.

34. How was that man killed?—By a fall of coal at the face from the roof. It was caused by a false parting at the top.

35. Would any care on the part of the men have prevented it?—Yes; they did not pull the coal down before they went under it. They had fired two shots and left their coal hanging, instead of getting it down before going under it.

36. Did the company pay anything by way of compensation?—I believe it cost them over £400.

37. Was an action brought against the company?—They were bringing an action.

38. Does your company pay anything to the Accident Fund?—Yes.

39. Was the £400 paid out of the Accident Fund?—No; it had to be paid by the company. That is a deficiency in the Act that is not fair.

40. Why?—Because if there are two men working in a place and a piece of coal falls, one is as much to blame as the other. These two men were working in the loose coal when the accident occurred. Under the Act the company is responsible for negligence on the part of their agents and servants. In the case referred to there was no negligence or fault on the part of the management. If the man had been killed when by himself they would not have been able to bring the action.

41. The law says that any accident is *primâ facie* evidence of negligence?—In this case the men fired shots and then went to work under the loose coal. Whose fault was that? That shows a deficiency in the Act.

42. What do you suggest should be provided for in the Act?—I think that any men working at their face—they may be two contractors—should be responsible for their own lives. There may be thirty shots fired in those faces during dinner-time, and to avoid accidents the company may have to send men round to see how the miners are getting the coal out. Supposing a boy and a man were on one of those cuddies and loosed away a box, and a man who happened to be on the main road below was killed, the company would be responsible for that under the Mines Act. I do not think that is fair. Every one should be responsible for his own acts.

43. In a very short time you think the ventilation will be all that you desire?—Yes, in about a week.

44. Are all the pillars in the mine left standing?—Yes.

45. Is any danger likely to ensue in taking them out?—It will be very dangerous on account of the partings. We shall be able to get some of the pillars out.

46. *Mr. Lomas.*] The new snatch-furnace is on the extreme rise of your present workings?—Yes; as far as I could put it.

47. *The Chairman.*] Do you screen the coal at the pit-mouth?—Yes.

48. What do you do with the screenings?—We throw them away, but sell the nuts.

49. At what price?—6s. 6d. at the pit-mouth.

50. Do you find a market for all your nuts?—Yes.

51. Do they go to town?—Yes, and all over the place.

52. The only waste coal, then, is the slack?—Yes.

53. So far, you have not been able to find a market for it?—No; but we could find a market if the railage were lowered. For screenings we only charge 2s. a ton, but a purchaser would have to pay 4s. 9d. to take that to West Plains, which is twice as much as we sell it for.

54. Could you sell it at 1s. a ton?—Certainly, it is only a nuisance to us. If you sell it in Invercargill there is nearly 5s. a ton put on it, which is a ridiculous price.

55. *Mr. Proud.*] Would it not have been better to have adopted a fan and put it in the extreme rise?—A furnace should work very well.

56. Not in a shallow pit like that; you want a deep shaft for a furnace to act properly?—Yes; but a snatch should work there very well.

57. But there is no height of column for it—there would be no power?—I think there should be a good power.

58. There is no depth for it to act?—Even if there is no depth it should work so long as the heat is there.

59. But there is very little heat?—There should be a good deal. All the current should go over it.

60. Do you not think that all shallow mines should be ventilated by means of a fan?—Yes, no doubt fans are the best.

61. Would it not have been better if you had kept the pipes closely up to the face?—They are close up to the face. They were only broken because they were going to the flat sheet.

62. You do not use any brattice in the mine?—No, because our pillars are only 12 yards square.

63. Do you not think it would be better if the pillars were much larger?—I do not think so on the system I am going to work.

64. Do you never rob or split the pillars?—My intention was to widen out the faces or ends, say, 8 ft. or 10 ft., and drop the coal to the parting, and then to drop the top coal on that.

65. How do you prepare the place before you shoot, when taking the coal out? Do you nick the sides?—There is no nicking here.

66. And no holing?—Yes, there is a great deal of that. I give the men the privilege of blowing or holing.

67. Do you not make a good deal of small coal by that?—No, because there are so many backs.

68. Do you use compressed powder?—No.

69. Would it not help you a bit?—I think it would be too sharp for this coal.

70. People who use it say they find better results from it?—I have no doubt it would be better in bituminous coal than in this. This coal is tougher.

71. What is your system of timbering?—If I am putting in a level or horse-road I put bars across. I get a hole in 11 in. or 12 in. and put a slot in.

72. If a man is in a dangerous place, does he protect himself?—Yes. His place is examined every morning. There is very little timbering here.

73. In the North of England the man protects himself and sends for the deputy?—If there is a bad roof here the fireman chalks it.

74. And if the miner considers his place in a dangerous state?—He is supposed to keep himself safe in his own place.

75. Why did the fireman allow that man who was killed to work his place when it was in such a dangerous state?—It was in his working-hours in the course of the day. The fireman examined his place in the morning.

76. Does not the fireman go his rounds in the course of the day?—Yes; but he does not take notice of a man getting his coal. The miner is supposed to keep himself safe. Suppose a man fires a shot he is supposed to get his loose coal down. Any practical man ought to know whether he is safe or not when he is getting coal.

77. That man did not do what was right; should not the fireman have stopped him?—If the fireman had seen him he might have stopped him, but the fireman cannot be in every man's place.

78. How did you find out the man's name who wrote to the Inspector?—I did not know the man's name. I did not know who wrote, or anything about it. The only information I got, as I told you in the mine, was through asking the Inspector in a joking sort of way what brought him back so soon, and he replied that he had got a report that the air was bad, and that he had come back to inspect it.

79. Do you see your way to clear away the powder-smoke any quicker when you have got your furnace completed?—Yes.

80. *Mr. Lomas.*] As regards the ventilation, is that the normal condition of the mine as we saw it to-day?—Yes, for the last four or five months.

81. Is it the rule for the men here to set their own timber in the working-faces?—Yes.

82. The deputies do not set timber except in the roads?—Yes.

83. As far as you know, that is the rule in New Zealand?—Yes, as far as I know.

84. *Mr. Proud.*] You could not suggest anything better than that?—No; I think it would be a great mistake to do anything different.

85. You would not have the deputy system in that respect?—No; I think allowing a man to keep his own place safe is the best.

86. Do you know that in Northumberland and Durham, where they have the deputy system, there are fewer accidents?—I have worked in mines in all parts, and that has been the rule; and I have had nearly forty years' experience. A man may put in a shot and shake the roof, and then go away and take no further notice of it, as I pointed out to you to-day. If you do not hold men responsible for keeping their faces safe, I think there would be more accidents.

87. That is your opinion?—That is my opinion.

88. *The Chairman.*] Mr. Handyside told us that up to a few months ago you were all a very happy family here?—Yes.

89. What is the trouble now?—The men made a demand for higher wages.

90. What did they ask for?—It would be equivalent to from 3d. to 6d. per ton.

91. Raising the rate from 3s. 9d. to 4s. 1d.?—No; it was in consequence of the different privileges they wanted.

92. You had better tell us all about it?—In tramming over 50 yards to 100 yards from their faces they wanted 3d. per ton; from 100 yards to 150 yards they wanted another 3d.; and from that to 200 yards they wanted another 3d. That would be 9d. per ton.

93. How far have they to tram it now?—The furthest would be about 150 yards.

94. Do they only get the same pay as those who have to go a short distance?—Yes, the same; they are all cavilled. I have cavilled here ever since it was a colliery.

95. Is there anything else they want?—There are muck-backs, and they wanted so-much a yard for shifting those.

96. Do they not get anything for it now?—No; but if they go to any I allow them something for it. I do not allow any man to do deficiency work without paying him.

97. Did they want anything else?—Yes; they wanted 10s. a day for the shift-work.

98. And the men are now getting how much?—9s. 6d. There are no men in the mine that get under 9s. 6d.

99. What do they get for working on the pit-bank?—I pay all the pick-and-shovel men here 7s. 6d. a day.

100. And what do they want?—8s. a day.

101. What are the men able to make at 3s. 6d. a ton?—From 11s. to 12s. a day.

102. How much do you pay a month in wages?—I think about £500.

103. Do you think the prospects of the company are better now than they have been?—Yes, they are better. Of course, the output is increasing, which always makes a difference. It is just a matter of output.

104. As to whether you can make a profit or not?—Yes.

105. Do you think the probabilities are that the demand for coal will increase?—Yes, in Southland. So will the demand for firewood and lignite.

106. Is lignite well distributed over the district of Southland?—Yes.

107. And there is a large quantity of firewood?—Yes.

108. Then the local demand for coal is not likely to be very much?—It cannot be much, as there is a large amount of logs and roots under the ground. There are piles of roots on the side of the road. From Orepuki and Riverton straight into Invercargill they use nearly all bush, and from Winton to Seaward Bush it is all bush; and after you pass Gore it is all lignite and peat.

109. *Mr. Proud.*] If you increased your output very materially would you not have to adopt mechanical haulage?—Yes.

110. *The Chairman.*] You haul it now by horse?—Yes, from the incline to the pit-bottom.

DUNCAN MACGREGOR, Miner, examined.

1. *The Chairman.*] You have been working at the Nightcaps Mine, how long?—For the last four years.

2. Are you satisfied with the management?—Yes, as far as I have seen it, I have no reason to complain of it myself.

3. How are you paid?—By the ton.

4. Are you satisfied with your earnings?—It is all contract work, and sometimes one man might be able to make a little more than another, according to his skill and strength. As far as I can understand, we are just as well paid here as elsewhere. We get 3s. 6d. a ton, and, supposing we got 4s., and they put more men on, we should probably make less money at the higher rate. It is a fair wage as it is.

5. Have you anything to complain of about the ventilation?—No; I have nothing to complain of in that line myself.

6. Do you think all the precautions necessary are taken for the safety of the men?—Yes, I think so. There was a serious accident some time ago when a man got killed; but in any place in any mine it might be safe and be made dangerous by the miner himself. As far as the people in charge of the mine are concerned, I think it is about as safe as it is possible to make it.

7. *Mr. Lomas.*] Is there a good supply of timber?—Yes, there has always been plenty of timber so far as I am concerned.

JAMES SOMERVILLE, Miner, examined.

1. *The Chairman.*] You have been working in the Nightcaps Mine for how long?—Twenty-eight years in coal-mines, and five years here.

2. What do you wish to say?—I wish to say that I was just appointed assistant-secretary to the Coal-miners' Union, as the secretary obtained leave of absence for a few months. I am not going to take anything on my shoulders, seeing that I have only to assist him while he is away.

3. Do you agree with what Mr. Dunn has said?—I think Mr. Dunn's statement with regard to the Coal-mines Act would not make any improvement in it. I am well satisfied with the Coal-mines Act myself, particularly with regard to the provision that the air has to travel through the working-faces at the rate of 100 ft. per minute. I do not think we could better that.

4. You have heard what Mr. Dunn said as to the pleasantness of the mine to work in?—Yes, I am well satisfied where I am.

5. Are you satisfied with the pay?—We have a few grievances, but as they are going to be submitted to the Conciliation Board before long, I do not think it is worth while to bring them up here. We are asking for a higher wage than I am getting at present.

6. What do you get?—9s. 6d. a day.

7. What is your work?—Shift-work. I can make more by tonnage, but I have been working day-work a good bit.

8. Why do you not take it by the ton?—If the manager says "I want you to go and do a certain job," I am not going to object. There are slack times just now, and a man on day-work works every day.

9. Generally speaking, you are satisfied with the management of the mine?—Yes. I have had cause to complain about my place not being up to the mark, but whenever I made complaints to the management they have always been willing to do the best to rectify them.

10. *Mr. Proud.*] Is the air carried round the working-faces?—There are 12-yard pillars—that is the regular size of the pillars. I have got brattice up to my face when I have asked for it.

11. *Mr. Lomas.*] Have you always found the ventilation satisfactory?—Whenever I have thought it was not good enough I made complaint to the manager, and he always made it good. I have been a long time away now—six months—from the main body of the workings. I cannot speak for other parts of the mine.

12. *The Chairman.*] Have you had any meeting of your comrades this afternoon, as you knew that we were coming here? Have you received any instructions from the general body of your men to represent their views?—No, I am not representing anybody. I was only appointed assistant-secretary on Saturday night last.

13. *Mr. Lomas.*] Did any one express a wish to give evidence here?—No, I do not think so.

OREPUKI.

TUESDAY, 12TH MARCH, 1901

MICHAEL STRAW, Mine-manager, Orepuki Coal and Oil Works, and late Manager for the Mokihinui Coal Company (Limited), examined.

1. *Mr. Proud.*] Do you think there is a large amount of coal in the Mokihinui district?—Yes, but it is patchy. In my opinion, there is a large body of coal at the Hut seam to the east of Coal Creek, from the Hut seam to the first railway-bridge which crosses the creek; this coal all lies to the dip of Coal Creek. If a bore was put down about 2 chains above this bridge on the east side of the creek, in my opinion, coal should be got at not more than 40 ft. to 60 ft. I was with Mr. McKay, the Government Geologist, making a geological inspection.

2. Have you traced any of the outcrops?—Yes; all over the place there are any amount of outcrops.

3. Do you think there will be any good coal found, sufficient to command a sale for household purposes?—Yes; there is plenty of coal there, but it is patchy. It is cut through by the gullies.

4. What thickness did you find the coal when you put a borehole down?—There was not much boring done at Mokihinui.

5. What do you consider was the cause of the fire at the Mokihinui Mine?—I do not think the fire was caused by spontaneous combustion; I never saw any signs during my management.

6. Were you there at the time?—No; I had got away. I had not been away a month when it happened. I do not believe there is the slightest combustion in the Mokihinui coal. I had 1,800 tons of slack there for eighteen months or two years, and when the strike took place I filled every particle of it up, and it did not take fire.

7. Do you think the Hut seam goes a great distance?—I think there is a good deal of coal there. There is a downthrow fault on the left-hand side of the Hut drive, which can be seen in Coal Creek about 2 chains below the Hut drive. I cannot say how big this fault is. In my opinion, this is the best coal area in the Mokihinui district. You can see that the Cascade has been upheaved.

8. You think the downthrow fault brings in the coal-measure?—Yes. There is a lot of coal there. The Cascade Creek (near Vaughan's Hotel) is the original bed of the coal, and you can see where it has been washed off.

9. Do you not think that in the drift of the Hut seam, when it gets to the country which is not so broken, there will be a good quantity of coal found?—No. That Hut seam goes right up against the granite in the bush, and is going in the wrong way altogether. There would be a few acres—posssibly 10 or 15, and perhaps more. There is what is called the Small Creek near the big seam, and if you traverse that you go into the granite.

10. You think the coal is cut out by the granite?—Yes, on the original lease. There is a good field where I stated, and it will be be proved some day. I notice by the newspapers that the State is thinking of opening up a coal-mine, and, in my opinion, that would be the place for it.

11. *The Chairman.*] You are mine-manager of the Orepuki Coal and Oil Company's Works?—Yes.

12. You have been so how long?—A little over two years. I opened the mine out. It was all bush where the works are now standing when I came here.

13. You have driven a heading to what distance?—1,000 ft. in the main dip. For the first 300 ft. it is 1 in 5, and the remainder is 1 in 4.

14. You have got a back heading?—Yes, an air-shaft, and return airway.

15. Have you done any other opening out?—Yes, we have opened out a large area of shale.

16. You are working primarily for shale, and taking coal out?—Yes; but the coal is not of much use, and is not used for an open fireplace. It smells a little.

17. You are selling what amount?—50 or 60 tons a month.

18. What are you able to sell it at?—We have to make the rate very low—6s. a ton.

19. Do you have to take the coal out to get at the shale?—Not necessarily—only about 2 ft.

20. Why do you take the coal out?—We are opening out. The shale is the roof for the coal.

21. But you are taking the coal out to make your roadway?—We take out sufficient coal for the roads.

22. Where do you get 6s. a ton for the coal?—At the pit-mouth. The local price is 10s., but only a few tons are sold in the township.

23. How many men have you working in the mine?—About twenty-two now. I had an average of thirty-eight during the last twelve months.

24. How do you pay them?—Some by contract and some by day-wages. We pay 16s. a yard for a heading driven 8 ft. wide and 6 ft. high; 10s. if 5 ft. wide and 5 ft. 6 in. high; 2s. a set for small timbers, 6 ft. legs and 4 ft. caps. The day-wages are 9s.

25. What do you find the men are able to make at the contract prices?—10s. or 11s. a day—some less. It depends upon the character of the man.

26. What sort of ground is it to work in, so far as timber is concerned?—It is safe enough now, but it will require a lot of timber when the shale is being worked, as the shale is full of joints.

27. Do you anticipate that you will be able to do very much with the coal when you have got your mine opened for the shale?—I do not think so.

28. Do you think it likely you will be able to sell it?—I am afraid not. There is not a trade for it.

29. Then what you are going to work is really the shale?—Yes, and the coal for works consumption.

30. A fairly complete and extensive plant has been erected for working the shale?—Yes.

31. Running into about what?—£100,000, I think.
32. And the coal is only a secondary consideration?—Yes, that is all it is worth.
33. How long is it since the mine was inspected?—About three weeks ago.
34. And before that?—Perhaps about six months.
35. Have you ever had any accidents there?—None whatever, neither above nor below. A man, when we first started, got hurt a little on a railway-truck, but it was nothing serious.
36. Have you any difficulty with regard to the air?—No; it was rather slack until we got the return shaft. Of course I took down brattice all the way to the bottom. We had it a little bit thick, and could not avoid it. We have splended air now, and we expect to put a fan on shortly after we are started.
37. Is not the ground a little bit loose?—No; it will be loose when working the shale, as the measures overlaying the shale are fireclays and bands of coal.
38. Is it not bad enough now?—The ground is very faulty.
39. Do you find any difficulty with the timbers holding?—Yes, it breaks them. It will crush up 14 in. round timber.
40. How do you secure the ground?—With timber. In crossing the measures overlaying the shale we find the ground very difficult to keep, which consists of fireclays and thin bands of coal.
41. So far you have escaped accidents; but do you anticipate doing so in the future?—Yes, except in working the shale. The men will require to keep plenty of timber set. There is always plenty of timber supplied to the men. The shale is full of soapy backs and disjointed.
42. That does not account altogether for the crushing?—No; that is through volcanic action.
43. I mean the creeping?—That is due to the formation, the fireclays and loose sand.
44. That is what breaks your sets?—Yes.
45. Then it is a mine that requires very careful handling?—Yes.
46. What quantity of shale do you expect to turn out per week?—I suppose we shall want 500 or 600 tons per week—say, 2,500 tons a year.
47. Have you tested the ground far?—Yes.
48. For what area?—300 or 400 acres about there.
49. And you are satisfied there is plenty of shale?—Yes, any amount. That is a good feature here—every part we have seen or proved keeps its thickness. Wherever I have gone, it is 4 ft. thick.
50. Are you an expert in shale?—I have not been in the shale-mines before.
51. You do not know what it will yield?—No, I do not profess to know that.
52. *Mr. Lomas.*] Do you purpose taking the shale out in large or small areas at a time?—In small districts, because it is a ground that will have to be worked quickly on account of the nature of the roof. I am opening it out for that purpose.
53. In every casey ou purpose driving to the boundaries, and then working on the long-wall principle, leaving everything behind you?—Yes; this is the most practical way to work it.
54. You do not think there is any danger, in working the mine, of any sudden weight coming down?—No; it will always be gradually coming down as fast as you draw out the props.
55. I mean in the headings themselves?—No.
56. When you are in the coal you have no difficulty about the ground?—No.
57. Do you think that system can be applied to a thicker seam of coal?—Yes, I think so.
58. To what thickness?—From 8 ft. to 9 ft.
59. It is closer timbered?—Yes; and we shall have to make the sets not more than 4 ft. apart. There will be two rows of timber, and the back row will always be very close.
60. *Mr. Proud.*] How often will you have to renew the timber in the working-places and main ways?—In the main ways, every two or three years. It has been nearly two years in that drive.
61. If the timbers were seasoned, would that be any advantage?—No. The class of timber is not very good. It is only red-pine.
62. What is the character of the strata?—There is about 10 ft. or 11 ft. of coal, with bands of fireclay through it, about 1 in. thick. The shale overlays the above coal. Over the shale there are a few inches of coal, 4 in., and up to a foot. Then there is only fireclay and rubbish. There is 200 ft. of cover from where we are working now to the shale, with very little good ground from top to bottom.
63. Have you had much experience in long-wall work?—Yes, nearly all my life. I have had thirty years of it.
64. *Mr. Proud.*] Have you had any experience in New Zealand?—Nearly sixteen years, but not in long-wall working. I have not seen any seams out here which require long-wall working.

OTAGO DISTRICT.

KAITANGATA.

THURSDAY, 14TH MARCH, 1901.

JAMES DONALDSON, Secretary of the Miners' Union, examined.

1. *The Chairman.*] I understand you represent a considerable body of men: I do not know whether they are organized or not?—I represent the Otago Coal-miners' Industrial Union of Workers. That includes all the coal-miners in unions in Otago—Shag Point, Allendale, Green Island, Fortification, Levels Flat, Kaitangata, Alexandra, Nightcaps, and Orepuki.

2. Will you make a general statement now as to what matters you propose to bring before this Commission?—I understand that the Commission has been appointed to take evidence upon and to inquire into the management, control, and inspection of the coal-mines of the colony. I wish to bring evidence as to the existence of fire in the Kaitangata Mine, a matter which affects the management. I think I shall be able to show proof which will satisfy the Commission that large areas of coal have been lost in the Kaitangata Mine through fire. Then, I desire to bring evidence in reference to the prevalence of carburetted hydrogen or firedamp, and carbonic-acid gas or black damp. Also that the means of escape are inadequate—for instance, if a fire broke out in the mine, could the miners travel the return airway in safety? Of course, these points will necessarily reflect on the management, and, as at present constituted, I suppose will come under the head of competency of management. Another point I wish to bring before the Commission is the ignition of gas, which has taken place on several occasions. I wish particularly to refer to an ignition of gas that took place on the 16th October, 1899, at the Kaitangata Colliery. There are the points I wish to call evidence upon. I would like to make a few remarks in connection with the fire at present existing in the mine at the brick wall which the Commission inspected this afternoon. Previous to the brick wall being erected there was a wooden stopping there. The fire was some distance—about 10 ft. or 12 ft.—from the main drive, and occasionally, as the stopping got hot, we used to go inside, or remove the door and stopping, get the hose to work, and remove the fire from behind the stopping as much as possible. It was found that the fire was increasing, and it was a danger to life to go inside the stopping. She fell to such a height that she must have been about 20 ft. high inside the stopping, as the roof had fallen. One morning when we were just about to remove the door from the stopping Mr. Shore came along. He asked us if we were going into the fire that day. I said Yes, and that it was very hot. He then remarked that it was his intention to have an arch there, but just then he could not get bricklayers. Some short time after that the brick wall was erected. I believe Mr. Shore had left at that time, and Mr. Broome was in charge. When the brick wall was in course of erection I was called from the inside workings to go out to it, as the fire had broken through on to the main drive. We got the hose to work and put the fire back, and blocked her with sand and ashes. The water running past us was also hot—that is, on the water-table. I might also state that when excavating for the brick wall the stoop behind the brick wall was found to be hot and steaming. I wish to draw your attention to the fact that at that time there was no fire on the top of the main drive, but there was a stopping in a heading some 20 ft. or 30 ft. above the main drive. That is all I have to say at present, but I am prepared to call witnesses.

3. *Mr. Green* (Inspector of Mines).] There are questions under four headings which have been mentioned. They have a bearing on the inspection, and contain very much more than your final remarks, which were confined to the brick stopping?—There was no fire on top of the main drive six months ago. If there is fire there at present, and they had put a stopping immediately on top of the main drive, that, of course, reflects discredit on the management.

4. In your opinion, is the brick stopping inferior to or better than the wooden stopping which was there originally?—Yes, if the brick wall was tight, and did not breathe out or in. If the brick wall was allowed to breathe, then the wooden stopping was superior, inasmuch as you could get behind the wooden stopping and see what was going on, and could beat the fire back. It is evident that the brick wall is breathing, and I know it to be a fact.

5. Is she breathing now?—It is evident she is breathing somewhere, or the carbonic-acid gas would have put the fire out. There is ample evidence that she is breathing, and that the means adopted are not adequate to suppress the fire.

6. Who suggested that the brick wall should be built?—I suggested that, and also that there should be a cement facing put on the brick wall.

7. It would appear that your suggestion of twelve months ago does not meet with your approval to-day?—I made the statement that if she was not allowed to breathe she would be superior to the wooden stopping. But she did breathe after the erection, inasmuch as they had to clay certain holes where she was breathing.

8. Were you called out to see the stopping?—That was when it was in course of erection.

9. Was the fire then at the stopping?—It was then at the brick wall.

10. Was it nearer to the brick wall than to the wooden stopping?—The fire seemed to be spreading.

11. The air would be getting at it while the wooden stopping was being taken out?—Yes.

12. Would not that cause it to flare up temporarily?—Yes, coming out and meeting the air going into the drive.

13. After the stopping was built it would dampen out again?—Yes, if the brick was tight.

14. *The Chairman.*] I understand your allegation is that the brick wall is not tight?—Yes; think the means adopted are not adequate to prevent the spread of fire. You will observe that the brick wall has been clayed. If the wall had been tight there would have been no need for the clay.

15. I wish you to indicate all the points you think the Commissioners should direct their attention to when they go into the mine in the morning?—Yes; the means of escape for the men in the event of an outbreak of fire. Also if there is gas—that is, firedamp or carburetted hydrogen—in the old workings.

16. *Mr. Proud.*] Could you mention in what way the brick wall is defective?—The fire has been allowed to spread. There must be a great body of fire at present behind the brick wall. The fire is on top of the main drive. You will notice they have boards above the main timbers.

17. The brick wall is not air-proof?—No.

18. Could you suggest how it could be made air-proof?—If it had been cemented there would not be the same facilities for her to breathe. Where the mortar has left there is a hollow between the bricks.

19. You say the fire must be sealed off?—Yes; the wall made perfectly tight.

20. *The Chairman.*] You have told us about the means of escape being inadequate, and the presence of gas in the old workings: is there anything else?—I believe gas exists in the old workings, and I wish the Commission to find out if it does. I mentioned also the presence of black damp. We have had some of our men laid out lately by black damp.

21. Have you anything to say about the ventilation generally?—I understand the Mining Act provides for 100 cubic feet per minute of pure air for every man, boy, and horse in the mine, and in certain parts of the mine the air is charged with black damp or carbonic-acid gas.

22. You mean that there is not the requisite amount of air going in?—Not if you take into consideration the amount of carbonic-acid gas she has to carry. 100 ft. per minute might be enough for a mine, say, at Green Island, while 500 ft. per minute would not be sufficient for a mine like Wallsend or Kaitangata. If gas exists it has to be removed by ventilation, no matter how much air is required. You must find sufficient air to remove the gas.

23. Do you find carburetted hydrogen in the working-faces at present?—We have had men go home lately through it.

24. What do you mean by going home?—Their safety-lamps went out, and they came home through not being able to see.

25. *Mr. Proud.*] Do you think the air has not sufficient scour to carry away the black damp?—The upcast is not large enough for the downcast. In the upcast they have 4 ft. diameter flues. The question will naturally arise; is 4 ft. a sufficient uprise for a mine like the Kaitangata?

26. *Mr. Lomas.*] What particular method have they for conducting the air round the working-faces?—Compressed air in some places forcing it in. There is a pipe about 1 in. in diameter. That is the only ventilation they have in parts of the mine.

27. Have you any brattice?—Yes.

28. *Mr. Proud.*] How is the air carried up to the working-faces?—The compressed air is carried up in a hose. The hose is about 1 in. in diameter, and that is your air. There is no brattice to conduct the air; there is nothing but the hose in some parts of the mine, and that is how it is ventilated. Of course, if anything went wrong with the hose there would be no air at all, because it would cut the air off, and if the mine was gathering gas you would have to put up with the consequences. There are some places where there is no air going into the working-places.

29. *Mr. Lomas.*] Does the hose lie on the ground?—It may be on the ground, or on nails knocked into the wall.

30. Is the mine generally well timbered?—The men have not always got the timber as they required it.

31. *Mr. Proud.*] Is the timber cut into suitable lengths for the men?—In some instances it is, and in some it is not. We have had a deal of trouble of late to get suitable timber. The miner is requested to take the timber into the face, and sometimes trouble exists between the miner and the manager as to doing so, and the miner cannot always get the timber he wishes.

32. *Mr. Lomas.*] Do you mean to say that the timber is not provided according to the Act?—Yes, that is so: that there is not sufficient timber in the working-places. It may happen that a man may want a prop brought to a place, and they may not care about giving him the prop. On the last visit of the Inspector he had to bring a man out of his place altogether. A man had been wishing timber to be brought, and it had not been brought.

33. What is the condition of the trucking-roads: are they clean, muddy, or passable?—The condition is very bad sometimes. In fact, not long ago the water-table was in the centre of the main road. One of the underground officials stated that he had put planks or boards on the centre of the road. The truckers a short time ago refused to truck on account of the road being out of repair. They protested and went home, and the management discharged ten of them.

34. Are there no proper watercourses in the roads?—Not at that time. I expect it is doctored up by this time. In fact, the water could go pretty well where it liked. Sometimes the water would float the boards, and they would get into the wheels of the boxes. Then perhaps the miner would complain, and wonder what had kept his trucker. Then the lads protested and said they would not do it any longer. They came home and were discharged.

35. Was the water over the rails?—Yes. An argument took place in the office as to whether the water went up the legs or over the boots. They had to tip their empty boxes over in the water to allow the full boxes to pass. Mr. Broome was understood to say that if the lads would sign a paper to the effect that the roads were all right he would re-engage them.

36. *Mr. Green.*] In reference to the compressed air which goes to the faces, I suppose you will go down the mine with the Commissioners to-morrow?—Yes.

37. And you will be able to show them what faces were ventilated by compressed air?—Yes. I have wrought in a heading myself that was up 300ft. or 400 ft. with compressed air.

38. *The Chairman.*] Was that period when the boys were "sacked" in Mr. Broome's time?—Yes, about five or six weeks ago; on the 24th January.

39. Could you bring some of the boys here?—Yes. We had four men discharged recently. There was a picnic held some time ago, and these men were members of the committee. Because the committee did not comply with a certain request of the management four of them were discharged.

40. Give us the facts of the case succinctly?—For some fourteen or fifteen years it has been customary for the employés to hold an annual picnic. The management were approached in connection with the matter in the same manner as before, and were informed that, owing to the extraordinary magnitude of the expenses incurred of late, the management could not assist them as in former years.

41. They declined?—Yes.

42. Then what happened?—After the public understood the picnic would be held the management interviewed the chairman of the committee.

43. What do you mean by "the management"?—Mr. Broome. He wished the employés to postpone their picnic. The men decided to go on with it, and the consequence was that four members of the committee were discharged.

44. They held the picnic?—Yes; and four were discharged.

45. How soon afterwards?—The following day.

46. *Mr. Lomas.*] Was that the reason assigned for discharging them?—Yes; he said he would hold the committee responsible, and subsequently I believe he has informed these men that they left their work.

47. Did not all the rest of the men leave their work that day?—Yes.

48. The mine was idle?—Yes. Only some five or six went to work.

49. *The Chairman.*] Have you anything else to tell us?—Another question is that the management has discharged men on the plea that they were old, and at present we have a section in the Kaitangata Mine that is termed or is known as the "Old Men's Home." The question arises as to who should keep these men. Is the company at liberty to discharge them; and should the country, or the industry which has profited by their labour, be forced to keep them? We have some old men who are as competent as the young men, yet they have been discharged.

50. *Mr. Proud.*] Do you think the old men should be put to work at tender coal?—Yes. But some of the men who are considered old are better than some of the young men, inasmuch as they work their places in a more practical manner.

THOMAS BARCLAY, Miner, examined.

1. *The Chairman.*] You are a practical miner?—Yes.

2. Employed where?—Nowhere at present.

3. *Mr. Donaldson.*] How long were you employed in the Kaitangata Mine?—About twenty years.

4. Have you been deputy or roadsman during any of that time?—Yes, for about six years.

5. Have you been underground manager?—I was underviewer for about seven years.

6. Are you acquainted with the seat of the fire at the brick wall?—Yes. I was appointed assistant manager to Mr. Shore in June, 1899.

7. You were discharged, or resigned?—I resigned in December of last year.

8 Have you a copy of your letter of resignation?—Yes, but not with me. I resigned of my own free-will, but I had reasons for resigning.

9. *The Chairman.*] Will you give your reasons?—One of my reasons was that the brick arch that I had suggested to Mr. Shore was not built at the brick wall. I considered it was not safe.

10. Did you give this reason to the management when you resigned?—Yes, I stated so in my letter of resignation.

11. Did you get any reply to it?—No; the resignation was accepted. When I was appointed assistant-manager I took charge of the stone-drive section. That was in June, 1899. The fire was then in the levels where the brick wall is now. I suggested to Mr. Shore that a brick arch would be the best means to cope with it, if backed with ashes. He was to get it done; but it was not done, through, I heard, the shortness of bricklayers. It was not done up to the time I resigned. I resigned in December, 1899.

12. When was it you suggested the arch?—About June, 1899, shortly after I took charge of that section. I resigned in December of the same year.

13. You resigned five or six months afterwards?—Yes. I went back about the middle of last year—in April—as underviewer.

14. How long did you stay then?—About four months. I was discharged.

15 Was any reason given?—Incompetency, I suppose.

16. Was that the reason given?—There were two reasons given: for not attending to that stopping where that brick wall is now, and for allowing the men to work where Jackson was hurt.

17. You were re-engaged, were you not?—I was re-engaged in April of last year.

18. In what position did you find the mine then, especially where the fire at present exists at the brick wall?—The brick wall was partially built.

19. Did you notice fire there at any time?—There had been fire through the wall over the top just before I went.

20. Do you consider that brick wall was adequate to prevent the spread of fire as it was built?—I consider that a brick arch would have been the thing for it. There are four levels in the heading, and it would enclose the lot.

21. Is the stoop directly behind that brick wall in a broken condition, or solid?—I was not there when the wall was built.

22. Just off the main drive has the coal been wrought back close to the main drive?—I did not have charge of those workings then. When I went back as assistant manager they were stopped off.

23. Just off the wooden stopping what condition was she in?—It was all fallen.

24. If she was left for any length of time, would not the stuff fall from the roof; and, as it accumulated, would not the fire increase when it got on a level with the timbers and spread over the main drive?—Above it was broken stone, and I did not consider it safe.

25. Suppose the brick wall was breathing, and the coal and sand were falling in this wide area, would it not naturally follow that the fire would accumulate?—My experience is that where fire gets air it increases.

26. Previous to your being discharged did you notice any fire on the top of the main drive?—I believe it was about three weeks before I was discharged. When the brick wall was completed I told Mr. Broome that they would require an arch inside where the brick wall is to shut off the heading, as the fire would very likely come up through there. There are cut-throughs where the fire is. It was arranged that an arch of 30 ft. or 40 ft. should be built there; but I understood from Mr. Broome that there was a scarcity of bricklayers to do it, and the fire came through the stopping in the heading a few months after. It would be about the beginning of August.

27. You were down the mine to-day as far as the brick wall, and saw the means adopted to prevent the spread of the fire, and you hold a first-class certificate: in your opinion, do you think the means adopted adequate to prevent the spread of the fire?—They are not the means that I would adopt. I would adopt a brick arch to cut off the heading.

28. Do you think that with the means adopted the fire will increase?—I do not think an inch board is sufficiently strong.

29. As the timber rots away or decays, do you think the timber is bound to give way, and allow the sand on the top of the drive to subside and permit the fire to breathe at places along the wooden timber?—If green timber is used it will dry, and the cavities created will allow the sand to come through.

30. The south side was working when you resigned: how did you find it when you were re-engaged?—It was shut off with a boarded stopping. There were three boarded stoppings in the three different levels when I came back.

31. Do you know the cause of the south side being shut off?—I was not there. I presume it was through fire. That is the cause of them being shut off at Kaitangata.

32. If no fire had existed at this south side I suppose a considerable amount of coal could have been taken out?—There was a large quantity of coal to be taken out when I was there. There were bords being worked when I was there.

33. It would naturally follow, then, that when the south side was closed off through fire the coal in that section was lost?—I presume the coal was not all taken out.

34. There were pillars that might have been taken out?—They could not possibly have all been taken out.

35. Were you still in the mine when they tried to open the south side again?—No.

36. Just in the immediate vicinity of the main drive, opposite the south side, are there any stoppages over the main drive—what you would call a centre heading?—There are two immediately close to the cross-drive.

37. I mean in the vicinity of the overthrow?—There is a level there which had been driven from the stone drive. There is a stopping there raised about 6 ft.

38. How did you find that stopping when you went back?—The one on the top of the level, where the 6 ft. of coal was, was pretty hot. The fire and smoke came through shortly after I went back. That is between No. 2 and No. 3 faults.

39. Did you suggest anything to the management as to the means to be adopted to cope with the fire?—I do not think I did. We put in an ash stopping, which seemed to do fairly well. Fire and smoke came through before that.

40. Was it coal or sand where the stoppings were hot?—The one on the level was upon 6 ft. of coal—above the level on the stone drive.

41. With your experience of fires, do you think the tendency would be for the fire to go into the bottom and burn the bottom coal?—Yes, when there is crushing, because the fire would go through where it got the air.

42. What facilities would the fire have for going along the main drive?—It would go along the main drive if it came out at the bottom.

43. You would probably have something worse than the brick wall?—It would be in just the same position.

44. There are, then, three fires that were found next to the main drive, or in close proximity: do you know of any other mine in New Zealand where the same state of affairs exists?—I have not been in many mines in New Zealand.

45. There are two fires right in the main drive: do you know, or have you heard, of one mine in New Zealand where there are two fires with all the men working inside?—There was one at Shag Point about twenty years ago.

46. Do you know at present of a mine being worked in New Zealand that has two fires in the main drive?—I have only been in a few small mines. I do not know of any mine in the same condition.

47. You are pretty well acquainted with the Kaitangata Mine: in the event of fire breaking out in the main drive, do you think that the miners working on the coal could safely travel the return airway and reach the surface?—That is a big question. There are some crooked places to

go through, and the men are working inside those parts. They could travel the return airway if they knew the road.

48. If a fire broke out and you had seventy or eighty men to travel the return airway where the 4 ft. diameter flues are, do you think it would be possible for the men to get out?—If fire broke out there would be a large quantity of smoke there: it would be a very difficult matter.

49. Would not the tendency be for the men inside these places to check the air, and the smoke to accumulate and extinguish the lights?—It is a very steep incline there.

50. Do you think that with the smoke and black damp the men could go through with naked lights?—No; you cannot carry a naked light at any time.

51. *The Chairman.*] Do you think there is any danger of a fire breaking through at any time with such suddenness that the men could not get out?—It always requires to be kept under supervision.

52. I am referring to the main travelling-road: would there be any possibility of smoke or flame breaking out with such suddenness as to give no premonition?—There might be in an extreme case.

53. All kinds of things might occur: what is likely to occur?—The usual practice is to have a water-hose there ready where a fire is known to exist in such cases.

54. You know that these fires—one on the left and one on the right of the main haulage-road—have been passed daily by the men perhaps for the last ten years?—Yes. There is a brick wall on one side and boards on the other side: there is not the danger of it breaking so quickly.

55. *Mr. Donaldson.*] You consider that the place should be arched?—Yes.

56. At present there is planking on top of the main timbers?—Yes.

57. Is it likely that fire might break out in that main drive and the men inside be lost?—Generally, if a fire draws air through a small cavity there is always smoke coming before the fire, and this gives the indication that the fire is likely to come through. Of course, if that is not known it would be a bad job.

58. Say that fire was dropping on to the main road, and that the place was neglected for half an hour while the men were inside and no one was travelling through, what would take place?—If the fire had burned the boards and the sand came out the fire would also come out, and if the fire got the air it would come out very quickly.

59. The fire would soon make a hole if it broke through, and was allowed a little time?—Yes.

60. *The Chairman.*] What is the difficulty about the men travelling through the main airway?—The men are working in the north section. They have to go down the first bord, No. 3 dip, in the stone drive, and up an incline of 1 in 2, and they cannot carry lights. It would be rather a bad job for them. The airway is very small, about 4 ft. most of the way, and very steep—about 1 in 1½. It is a very good climb, and you pull yourself up with a rope.

61. Is that the only way out?—Yes, within the main drive.

62. *Mr. Donaldson.*] Do you know the condition of the air-shaft?—It was good enough when I was there.

63. Do you know of any other sections in the mine that have been abandoned through fire?—Mostly all have been abandoned through fire. Some have been worked out.

64. And some have not, I suppose?—Yes.

65. Do you consider there has been much coal lost through these fires?—It has been the custom in Kaitangata to close the place when it gets too hot, and to open it again in a few years.

66. *The Chairman.*] How many places have been opened out and found to be workable?—Nos. 1, 2, 3, 4, and 5 sections in the crosscut, and 2 and 3 sections in the south-side level, and Williams's heading in the Drum level.

67. *Mr. Donaldson.*] What do you mean by the south-side level?—The south-side level is the first section from the bottom of the crosscut.

68. *Mr. Lomas.*] What does a section consist of?—There used to be ten bords in the section I have given you, but sometimes there are five.

69. It means a level as well?—Yes.

70. *The Chairman.*] How do you account for the prevalence of fire in the Kaitangata Mine?—It is due to the class of coal.

71. *Mr. Donaldson.*] Is it not a fact that dross is left in the mine?—Yes; the custom is to leave as much of it as possible if it does not pay. If larger pillars were left and all the coal filled out of the bords it would minimise the danger.

72. *Mr. Lomas.*] If everything was filled out?—Yes.

73. *The Chairman.*] Is the mine a dangerous mine to human life if it is worked in its present state?—I do not think it is; it is just the ordinary run of mining.

74. It is not a specially dangerous mine?—No, I would not consider it so.

75. *Mr. Donaldson.*] In stooping (pillaring) what means have the men of protecting themselves: say, for instance, the men were taking out stoops or dropping solid coal, and she is about 20 ft. high, what means do the men adopt to protect themselves?—Of course, it is better to take the stoops out after the bords are driven. The bords are driven 7 ft. or 8 ft. high.

76. Supposing there is 5 ft. or 6 ft. of coal to be taken directly from the roof, and she is 20 ft. high, what means do the men adopt to protect themselves?—They adopt no means at all; they trust to their agility generally.

77. *Mr. Lomas.*] Do they take out pillars 20 ft. high?—It has been done. The bords have been dropped 20 ft. high, and the pillars then taken out sometimes.

78. *Mr. Donaldson.*] Have you ever known it to be the case that the deputy would go round in the morning and chalk a certain place, and the miner had to start there, irrespective of the place being timbered or made safe?—Of course, if it is high, the deputy has a stick to probe the roof to see if there is any gas, and if he thinks it is safe the man starts, and, if not, the man does not start.

79. That is the system of working coal in the Kaitangata Mine: the men cannot see the roof, and cannot get up to certain parts of it. Are there ladders in the mine?—Yes.

80. So that these men can get up and sound the roof?—Yes; but the men are generally at the sides.

81. *Mr. Lomas.*] How do you take the pillars out—a slice at a time?—Yes.

82. *Mr. Donaldson.*] We are talking of a place 20 ft. high, where the bord is perhaps fallen: are there ladders?—I could not say there are on every occasion. I know I generally kept ladders there, when I was there, for the use of the men.

83. Do you know any section of the mine where the section is standing in solid coal and faulting?—Yes, partly faulting and partly not.

84. Is there any way by which the management could reach that section—is it completely closed off?—Yes.

85. And that coal remains there, and the gas also: that coal is lost?—It can be reached by going to the expense.

86. Would it take a considerable expense?—Yes; by a stone drive, and so on.

87. *Mr. Lomas.*] Can you give us any idea of the area of coal lost?—No.

88. *Mr. Donaldson.*] How many bords are there left in that particular section?—There are seventeen open, and one heading.

89. *Mr. Lomas.*] Of any good coal?—Yes.

90. Are the bords worked out to the fault?—There is only part of the heading I referred to—the Forest—at the fault.

91. *Mr. Donaldson.*] Are there any other headings not on the fault?—Yes; Thomson's heading in the same section.

92. Have all the bords been worked in Thomson's heading?—No.

93. Are they standing on solid coal?—Some of them.

94. Have the headings been dropped on the bords that have been wrought?—One.

95. What thickness would the coal be?—About 14 ft. or 15 ft. there, I think.

96. *Mr. Lomas.*] Can you tell us why this coal was left?—Generally through fire. The coal nearer at hand was got. That was partly the reason; but the principal reason was through fire.

97. Where does the fire usually start first?—In a crushed pillar.

98. Does it ever start in the bords?—Alongside the bord in a crushed pillar.

99. But never in a solid bord?—Never in a solid pillar.

100. *Mr. Proud.*] Where is it crushed?—In the pillar.

101. Are the workings so laid out that in the event of fire they can blocked off?—Sometimes.

102. Then, it does not follow that the coal is lost?—No; we went in and took it out again.

103. Are the pillars ever robbed and split?—Yes, in 1, 2, 3, 4, and 5 sections. They were nearly all taken out in the second working.

104. Do you think the pillars should be made larger?—Yes; if larger they would minimise the chance of fire.

105. Do you think that you cannot make your pillars too large?—No. From 20 to 30 yards would be a fair average pillar.

106. Do you think the return airway should be enlarged?—I believe in a good-sized airway.

107. It would make a good travelling-road?—The larger it is the more air you get.

108. So that in the event of fire the men could return by way of it?—Certainly. Of course, part of the return airway is very steep, and you have to pull yourself up with a rope.

109. If the stoppings are carefully watched is there much fear of fire?—No. Where there are ashes there is not so much danger; but where there are single boards there is great danger.

110. *Mr. Lomas.*] Is there any danger that where these fires are there may be an accumulation of gas which may cause an explosion behind the fires?—We have only gas here down in the new workings. After you have worked the coal the gas escapes.

111. *Mr. Proud.*] You never find carburetted hydrogen in these fires, I suppose?—There is carburetted hydrogen given off through the fires if the coal is coming up through clay. A mass of coal going through clay makes gas, because it is distilled if covered with clay.

112. *Mr. Broome.*] I think you said you had been about twenty years in the Kaitangata Mine?—Somewhere about that.

113. Have there been many fires there during that time?—There have been fires there all the time in certain places.

114. Have many stoppings been put in during that time?—Yes; and even single bords have been sealed off.

115. How many of those fires burned through?—There was only one that I know of in the north side that was burned through in No. 1 heading. I think there were two burning in the Forest heading section.

116. Where a section has had to be abandoned on account of fire, has it been through the stoppings burning out?—No. They were always repaired, any that I knew. I might say it was generally a single bord.

117. So that where you had stoppings you were always able to keep the fire in check?—Yes, after an ash stopping.

118. Did a bord fire when it had been attended to?—No. When there is a fire inside a wooden stopping the air is drawn through, and the fire comes through.

119. Did the fires ever master you where you had a boarded stopping?—No.

120. You were always able, where the boards came away, to get an ash stopping there?—Yes.

121. You were some four months in the employ of the company since I have had charge of the mine?—Yes.

122. Were the fires in the mine worse during that period than in any preceding period?—I do not think they were. There was one in the Drum heading. It was a board stopping, and when it was made an ash stopping there was no further trouble with it.

123. You have never known an ash stopping to burn out?—Yes, so far as the fire has come out through the side in the stoop.

124. Was that difficult to remedy?—We went in behind and cleaned it out and put more ashes into it. When the pillar is crushed you have more difficulty with it.

125. Do you think the danger from fire is greater now than it has been for years past?—I do not know the exact state of the mine at the present time.

126. Say, when you left a few months ago?—When I left it was just about the usual thing.

127. The brick wall was partly built after you came back, was it not?—Yes; the highest part was built after I came back.

128. How long did it take to complete the building of it?—Only two days after I came back, I think.

129. How long do you think it would have taken to build an arch there, working only on the night-shift, as we could not work at it when the rope was running?—In the summer-time there could have been two shifts at the building of it. One shift could easily supply the trade in the summer-time. It would have taken longer than the wall to build, no doubt.

130. Could you have kept the fire properly closed off all the time your arch was being built?—When I advised the arch to be built there was no fire at all.

131. There was not much need for it then?—There was need for it. The roof was all broken above.

132. Would it have been a good thing to have kept the ground open the whole of the time you were building that arch?—The ground was open. The main drive was open when I suggested it.

133. Would you not have had to disturb it?—The fire was away from the arch to be built.

134. If the roof was broken and you had started to take it down I should think it would fire: the wall was constructed quicker than the arch, and did not let so much air in?—I understand that the stuff was taken out before the wall was put in for some weeks, which shows that there would not have been any danger if the arch had been built.

135. Do you consider that part of the mine is more dangerous now that the wall has been built and the roof boarded with 1½ in. boards, packed with sand, and the sides also sanded?—I know that when I left the fire was down, and the new stoppings were put in the heading, and the road was all open. Of course, there was not so much danger when it was covered over. I do not consider 1 in. boards a sufficient cover; in my opinion, it is not strong enough. I saw them sagging or bending down 4 in. or 5 in. there, which shows that 1½ in. boards were not strong enough. I saw a good bend on it. That is where the danger is in these boards—they let the sand out.

136. Providing it was all cool, I suppose it would not be a difficult matter to renew them?—Not if cool.

137. And if the air is effectively sealed off there, and the other stoppings well attended to, what will the effect be?—If made airtight it would put the fire out.

138. *Mr. Donaldson.*] Was there not an ash stopping at No. 1 heading, which was an ash stopping—No. 1 cuddie?—There was a boarded one first, then an ash stopping after the boards had burned through.

139. A stopping had to be put there outside the one that was formerly in the heading?—Yes; it was renewed. It was made tight. It was sealed off with an ash stopping.

140. You had to go out and put in another stopping?—Yes.

141. *Mr. Green.*] Do you remember Mr. Donaldson referring to very high workings in the south workings: he said, I believe, that some were 20 ft. high?—Yes.

142. I wish to ask you what was the outside thickness of coal at that point?—It would be about 30 ft.

143. When that coal—the tops—was being got did the men stand on the heap of fallen coal they produced?—Yes, in the first instance, but not in taking out the pillars.

144. Did they trim the roof carefully?—Yes.

145. You followed the man and saw there was loose coal left behind?—The pillar has been taken out where this was taken down.

146. The roof was left safe so far as the officials could see?—Yes.

147. With regard to the brick stopping, did you ever find any damp leaking?—There would be a little smoke coming once. It was a matter of pressure.

148. Was there any black damp coming from the stopping?—The brick stopping is one of nine. There are three in the return airway. I never found it leaking black damp or drawing air.

149. As a colliery official, you would say it was a tight stopping?—Fairly tight, I should say.

FRIDAY, 15TH MARCH, 1901.

FREDERICK ANDERSON examined.

1. *Mr. Donaldson.*] You are a practical coal-miner?—Yes.

2. How long have you been employed about the Kaitangata Mine?—Somewhere about fourteen years.

3. Have you been employed as a coal-miner during those fourteen years?—Partly. I have been continually in the mine since.

4. For some of those years you have been roadman or deputy?—Yes.

5. And your duties have entailed on you the looking after certain stoppings?—I do not know that. I am not employed to look specially after the stoppings, except in a general way.

6. But you have done so?—It would be seven or eight years ago that I was looking after the stoppings.

7. Supposing there was fire in a bord, and there was a hose used with running water, when you visited any of those places did you go by yourself?—Sometimes I went by myself and sometimes I had some one with me.

8. What condition at the present time is the place in which is know as the crosscut?—That is closed off.

9. What was the cause of it being closed off?—I think it was pretty well worked out.

10. Do you know a place in the mine known as Rogers heading?—Yes.

11. What was the reason of that place being stopped or closed off?—That is a good way in from the crosscut. I do not know that I could give you any reason why it was closed. Part of the workings had to be closed to prevent the fire from spreading.

12. There was fire there?—I do not think we were troubled with a great deal of fire in Rogers heading.

13. There must have been fire there or it could not spread?—I was not referring to Rogers heading when I said it was to prevent the fire spreading.

14. Why was Rogers heading blocked off?—The fire outside Rogers heading was the reason. Forest heading was the principal cause of our trouble at that time. That had fire in it, and it blocked off the two.

15. After Forest and Rogers section was blocked off was it ever opened again?—Not to my knowledge.

16. Do you know a place in the mine called the brick wall?—Yes.

17. How many months ago is it since you first observed fire on the top of the main drive?—I could hardly fix the time. It is more like years than months.

18. What do you understand by "the top of the main drive"?—I reckon it is what we call the stone drive—the heading over the stone drive.

19. The main drive is timbered?—Yes.

20. When did you first observe fire on the top or roof of the main drive?—I dare say it would be three or four years ago.

21. How many feet from the roof of the main drive would the fire be?—When first discovered it would be 12 ft. or 14 ft.

22. That would be 12 ft. or 14 ft. up what is known as the centre heading, away from the roof of the main drive—of course, it was above the main drive?—Yes; the thickness between the roof and the pavement of the heading.

23. Has it come any further down the centre heading since four years ago?—It has come a little further down, but I think there is very little fire there at the present time.

24. Have you ever observed fire at the bottom of the centre heading and on the roof of the main drive?—I have, a little.

25. How long is that ago?—I should say, about nine weeks ago, as near as I can remember.

26. What sort of preventive or stopping was used at the time to prevent the fire coming through the roof?—Boards were used in the first place, and then sand on top of the boards; but apparently the sand got away and the fire came through the timber.

27. So that the fire was burning the boards on the top of the main drive?—Yes.

28. What means did you adopt to prevent the fire spreading?—We put it out with water, and then used sand packing and filled it out with sand.

29. And you had used sand there formerly?—Yes, that is so.

30. What means have you of getting up to this fire through the roof?—We have two trap-doors.

31. And when you get through those trap-doors what height will it be from the sand stoppings to the roof above you?—In some places the sand is close up against the coal, packed tight up against it, and in some places it is 8 ft. or 9 ft. away.

32. What height will it be at the highest part?—10 ft., as near as I can say.

33. What precaution is taken for the safety of the men's lives when they go up to this fire? You say it is 10 ft. in the highest part: how is the roof supported?—There is a block pillar in, and part of the stone stopping a little further up—a stopping about 5 ft. thick and 8 ft. long.

34. When you are on top of the sand stopping will you be unsupported by timber?—I never took any measurements of it.

35. Just give us an idea?—There is not a great space at the present time. I should say there is about 20 ft. square.

36. The roof is unsupported for a space of 20 ft. square?—Yes; but there is a coal roof.

37. What state is the roof in?—In a good state.

38. Have you sounded it lately?—Yes.

39. What did you sound it with?—A scantling.

40. What length was the scantling?—6 ft. or 7 ft. long.

41. Do you consider a scantling a proper tool to sound with?—It is quite sufficient to sound with there.

42. Do you think that would give you an idea of it or not?—Yes; I think it will give you an idea whether it is safe or not.

43. Since you first discovered fire in the main drive how many shifts per week have you wrought with in this particular part of the mine?—It is such a long time to go back. I am working six shifts as a rule, and sometimes seven.

44. Have you wrought three shifts a week at this fire?—No, not at the fire itself. There have been months when I have not been at it at all.

45. You said it was five weeks ago since you discovered fire in the main drive: how many shifts have you put in since, working at this fire?—I dare say I have put in six or seven shifts altogether in the five weeks.

46. When were you working last at this fire?—The last time we were above the main drive was last Saturday night, when we were taking the ashes and sand over.

47. You were putting sand and packing on top of the main drive on Saturday night?—Yes.

48. That would be with the Sunday-morning shift?—Yes; it starts at 11 o'clock on Saturday night.

49. Has any one wrought since, to your knowledge, on top of the main drive?—Not to my knowledge.

50. No work has been done since Sunday?—Not at the top, so far as I know.

51. When you opened the trap-doors how did the fire behave itself: did any smoke go along the main drive?—There was very little; it was principally steam.

52. You know the return airway?—Yes.

53. Do you know any part of this return airway where there is tubing?—Yes.

54. What is the size of it?—4 ft. in diameter.

55. What is the tubing composed of?—Sheet-iron.

56. How many working at the coal could travel the return airway?—I could not say that.

57. Do you think if a fire broke out in the main drive the men could travel the return airway in safety?—I think so.

58. How many feet per minute of air do you think would be travelling through this tubing?—I could not say; I have never taken a measurement of it.

59. Do you think a miner could carry a naked light there?—Yes.

60. And the air would not blow it out?—It might sometimes, and at other times it might not.

61. Do you mean to say that with all the air coming down the main drive and rushing through this 4 ft. diameter tubing a miner could carry a common tallow-lamp there?—I carried an oil-lamp through it last night.

62. *Mr. Broome.*] What caused the defect in the sand that was first put over the stopping in the main drive at the far end where the stopping burned through—that is, under the heading?—There are only two causes for it, as far as I can see. It was not sufficiently rammed, or else it had been washed away with water.

63. Such as the water you had to play upon the stopping above?—Yes; that is most probable.

64. Was the sand you repacked it with the same or similar sand to the first that was put in?—No. I think the last sand we have been having is a finer quality. It is not so rough as the first that came down.

65. And in your opinion is it thoroughly tight with the sand packing that is now on?—I believe it is.

66. *Mr. Lomas.*] In the particular place where you had to use a hose and were alone was it dangerous?—No.

67. Were you far from the main drive, or from any one else working in the mine at the time?—There are generally men working all round close handy.

68. It is not dangerous from the roof?—No.

69. When it is dangerous do you go alone?—When it is dangerous I can always get men to go with me.

70. In what particular part of the roof and main road was the fire?—It was just on the edge of the brick wall. The hole was about as much as you could put your hand through. It would be close on 2,000 ft. from the mine-mouth.

71. Which part of the brick wall was it?—About the centre.

72. *Mr. Proud.*] Could you suggest any better method of sealing off the fire than by sand?—No. I believe either sand or ashes are as good as anything we can possibly get to close the workings.

73. Do you say you do not know of any better material that could be used?—I do not think so. Ashes are better than sand, if you can get sufficient.

74. Would not puddled clay be an improvement?—No. Clay would crack and allow the air to come through.

75. *Mr. Lomas.*] Did this fire come over or through the sand?—Apparently, some of the sand must have got shifted, either through it sinking or by water washing it away.

76. Do you know any other place in the mine where the sand has come through?—No. I have known it to come over the stoppings.

77. *Mr. Proud.*] How would the fire pass the sand?—It would come over the top of the sand from the coal.

ALEXANDER BROWN, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years' experience have you had in coal-mining?—Thirty.

2. How long have you been employed about the Kaitangata Mine?—Eight years.

3. Do you know a portion of the mine known as the crosscut?—Yes, but very little about that.

4. You know a place at present known as the brick wall?—Yes.

5. How long ago is it since you first observed fire on the roof about the main drive?—I never saw fire in the roof until it broke over the top of the stopping.

6. *The Chairman.*] How long ago is it?—Seven or eight years ago.

7. *Mr. Donaldson.*] Whereabouts was that?—Away up at the top end of the wall.

8. How did you get up on the top of the sand stopping?—We just had a little ladder we walked up.

9. When you got up did you find it hot?—Yes.

10. Was it very hot?—It nearly burnt the head off you.

11. How did the water feel when it dropped from the roof on you?—It took the skin off you.

12. Did you put anything on to prevent that?—We had to put a bag over our heads the last time I was there.

13. When you were far in did any smoke go along the main drive?—We put a screen up, and the smoke was driven on one side of it. It went along the main drive then. It had no other place to go.

14. Did they bring the men out of the workings before that?—We used to do that work always at night, when no men were there excepting ourselves.

15. You know the return airway?—Yes.

16. Do you think that, in the event of a fire breaking out in the main drive, the men working at the coal faces could travel the return airway in safety?—They would have to travel one at a time. Two could not get up the tubing at one time very well.

17. Do you think a miner could carry a light or tallow-lamp through the tubing?—He might do it going up, but not coming back, if there was a good fire in the furnace.

18. You remember last Sunday morning?—Yes.

19. What took place when you went to the cabin?—I got two safety-lamps, and was told the place was a little bit dull.

20. How did you find the air in your working-place in the bord?—When I went in the first thing I did was to lay down my coat and sit down; then I tried to get in and could not; then I came back.

21. What prevented you getting in?—It put the lamps out.

22. Was it gas or black damp that did that?—They were both mixed together.

23. What did you do then?—McLellan and I went in the next time. There was a box of coal in the bord. When I found I could get no further I lifted the lamp and saw it was chock-a-block. I came out again, and went back a third time, and got it full up again. I then thought it was time to go home.

24. Did you meet any one on the way home?—Yes; I met Mr. Broome, Mr. McAllister, and Mr. Longstaff.

25. Did they make any remarks to you?—Mr. Broome asked me why I was going home.

26. Did you reply to him?—Yes. He asked if Mr. McAllister had been in in the morning, and he also asked Mr. Longstaff, who replied that it was pretty clear when he went in.

27. *The Chairman.*] Did you say anything at all to Mr. Broome?—No.

28. Did you not tell him there was something wrong?—Yes; I told him I could not get into my place.

29. Is that all you said—leaving him to understand it was through gas or black damp?—Yes.

30. Did you go back again the next day?—Yes.

31. Was it all right then?—Yes.

32. Did you lose a day's work through it?—Yes, I did.

33. That was the Monday?—Yes; Monday afternoon.

34. How often has that experience happened to you?—That is the first time.

35. The only time?—That is the first time it has happened to me on coal. I have been on shifts for some time back, and have been a month on coal now.

36. With regard to the fire in the roof over the brick wall, is there any danger of that suddenly breaking out while the men are in the mine?—I have not been there since the New Year.

37. When was the wall finished?—It was finished a long way on the other side of the New Year.

38. When you were working at it and you said it was so very hot was there any danger of it breaking through suddenly so as to cut off the men's chance of getting out?—It was in the night.

39. Was there any danger of it then breaking through during the working-shifts?—It would have to work down the side of the wall. It was up to the top when I was working at it, except once.

40. The suggestion is that this fire might, with reasonable probability, at any time break out while the men were in their working-faces and cut them off, supposing there was no return airway?—No, I do not see any need for that.

41. *Mr. Broome.*] Have you any idea of what was the cause of the dullness on the Monday when you could not get into your place?—It was bad on the Friday before that. I do not know the cause of it, except that I heard afterwards that there was a screen half down below, which was throwing the air over the other way.

42. When that screen was put up again it was all right?—Yes.

43. Then, it was due to that screen being down?—Yes.

44. You did not hear, I suppose, how the screen got down?—I never heard.

45. I suppose it was possible for it to have got down after the fireman made his examination?—It must have fallen between Saturday and Monday morning, because I was working there on the Saturday.

46. You have no idea how it came down?—No. It was in a different section, down below me.

47. *Mr. Green.*] You said that when you went to work on the Monday you were given two safety-lamps?—Yes.

48. What time was this?—In the afternoon, between 3 and 4 o'clock.

49. Had any one been working there before that day?—There was a shift in the place before me, and they had to go home for the same thing as I did.
50. *The Chairman.*] Did you know that when you went in?—Yes.
51. You knew that men had had to go out because of bad air?—Yes.
52. Is that the reason why you took the two lamps?—I got the two lamps.
53. *Mr. Green.*] They were served out to you?—Yes.
54. Did you get any instructions?—They told me it was a little bit dull.
55. What did you understand by the air being a little bit dull?—That the air was not travelling properly.
56. Can you say that this is the first time in your experience that you were unable to work in a place from the same cause?—Yes, because I have not been working in coal.
57. This is the first and only time since you have been working in coal?—Yes.
58. How long is it since you have been going back to the coal?—Four weeks.
59. When did you go back to work again after this happened?—On the Tuesday.
60. Was it all right then?—Yes.
61. How did you know that the air in the place was a mixture of gas and damp?—Because I tried it with my lamp.
62. You get damp on the bottom and gas on the roof?—No. If you put the gas up it will explode. I got it up so far that it went out altogether.
63. Whereabouts was the air travelling?—At the far end of the Kettledrum.
64. That is at the rise on the other side?—Yes.
65. It is the most southern portion of the Rise workings?—Yes.
66. How was the air back from the working-place?—There was no air coming in at all.
67. The air circulates through an inlet and outlet over the area, and your face was far from the return. How was it circulating at the time?—There was no air at all. It was coming in the same as usual, but going out the wrong way.
68. It was due to the screen being down temporarily?—Yes.
69. *The Chairman.*] You say the screen must have fallen during the time from Saturday to Monday morning?—Yes.
70. May it not have fallen after the deputy had been round on the Monday morning, between the inspection and 3 or 4 o'clock in the afternoon?—The shift in front of me had to go home.
71. That is your reason for inferring that it must have fallen before?—Yes.
72. *Mr. Green.*] Was your face choked?—I did not look at it to see. I got enough during the time I was in.
73. *Mr. Proud.*] How long was it after the deputy had inspected the places?—I do not know. The deputy was round in the middle of the day.
74. It was some hours before?—Yes.
75. There was no ventilation in your place?—No.
76. *The Chairman.*] You say the air was coming in, but instead of going into your place it was diverted in consequence of a screen being down and it went into another channel?—Yes.
77. Do you not think there should be a short interval between a deputy examining a place and the miner going into it?—(No answer.)
78. *Mr. Lomas.*] How far from the face was it where you tested the gas?—Close up against the face.
79. What did you do at the fire at any time you went up to it?—Just put them out and tried to block them off with ashes.
80. Did you lock the fire out?—Filled it out.
81. Did you put any water on it?—Yes, and shovelled it out and put ashes behind.
82. You say you have been working day-work for a while?—Only a month.
83. Do you know whether it has been customary for men to go out through gas being in their places?—Yes, because I have seen them going home sometimes.
84. When the drop-sheet was put up again had you a fair quantity of air passing through the working-faces?—Yes.
85. Always?—Yes.
86. *Mr. Broome.*] Did you appreciate the change from shift-work to piecework—did you feel that you had any grievance through being shifted?—I had no grievance at the time, except that I did not get proper notice. I was asked by Mr. McAllister if I would go in for No. 4 dip, and I said, Yes, if it was going to be wrought in a shift. That is all the notice I got until I was named in the general cavil.
87. And you felt you had not been properly treated?—No.
88. *The Chairman.*] Which would you prefer to do—to work on a shift or on cavil?—Cavil.
89. Where does the grievance come in?—Well, you are your own boss.
90. You did not like being taken away from the shift-work and being put on cavil?—I did not get proper notice.
91. Is that all your grievance?—I had no grievance, and never said I had to any one.
92. You would prefer to get coal on piecework?—Yes.
93. What wages do you get on a shift?—10s. a day.
94. You thought it was rather too sudden to be taken from the shift and put on the cavil?—Yes; because I did not get proper notice.

ROBERT STATHAM, Coal-miner, examined.

1. *Mr. Donaldson.*] How long have you wrought about the Kaitangata coal-mines?—Eight years next month.
2. What section of the mine are you working in at present?—What is termed the north side.

3. Are you working in a heading, a level, or a bord?—In a heading this present cavil.

4. How is the heading ventilated?—I might say that when I went to the heading it was driven up with the air. There was a return which came up with the level, about 50 ft. from the main level—what little air there was. Certainly there has been very little air which came up the heading. It comes in and there is an end to it.

5. How far is it from the nearest end to the face?—100 ft. from the stenton to the face.

6. Is there any brattice to carry the air?—No; there has been no bratticing.

7. How is the heading ventilated at present?—With an air-pipe.

8. What size would this air-pipe be: would it be an inch in diameter?—I should think so, to look at it.

9. So that you are working with compressed air?—Yes.

10. Are you working with safety-lamps or with naked lights?—Sometimes with a naked light and sometimes with safeties, just as the deputy thinks fit.

11. During the last fortnight how have you found your place generally in the morning?—One morning in particular I went into my place and was told it was very dull. That was previous to the air-pipe being put on.

12. *The Chairman.*] During the last fortnight?—Yes. I took my safety-lamp and went up, and when I got within 40 ft. of the face I lost both my lights. I came down the heading again, and, seeing that my trucker was not in, I went out and saw Mr. Broome and Mr. McAllister coming in on the level. I explained the thing to Mr. McAllister, and he relit the lamps and told me to go in and break a bord away half-way up the heading, where it was marked off. I complained about the air being very bad the week previous to this, and said I found it telling on me and going through my system, and that I could not get any sleep through the gas.

13. *Mr. Donaldson.*] Did you ever test the lamps for your own safety?—That very morning I took the lamps out, Mr. McAllister lit them, and Mr. Broome took the lamps up and blew them both out. He spoke to the deputy about it, and Mr. McAllister undid the lamps and found the washer was not screwed up. Mr. Broome blew them out a second time, when Mr. McAllister took an instrument out of his pocket and screwed the lamps up tight, and I then found them so airtight that you could not blow them out.

14. That was subsequent to your two lights being extinguished by gas?—Exactly.

15. Did you go home?—No; I was sent back again to break a bord away where it was half-way up.

16. Have you found gas in your place since that time?—A shift and a half ago they put the compressed air up.

17. That is your present ventilation?—Yes.

18. In going to and fro from your work have you ever felt what is known as the brick wall with your hand?—Yes; from curiosity more than anything else.

19. Was it hot or cold?—Hot in patches here and there.

20. Was there a smell of fire in that particular part of the drive?—I have smelt it more in going in than in coming out. I have passed the remark to my mate that it was a bit fishy.

21. Did you feel anyway uneasy about the fire while you were at work?—I cannot say I felt uneasy. There was talk going on about it. I really thought there was some danger not coming to light, and I knew what it was like inside, because I had worked on the brick wall.

22. Do you mean that your experience of this fire made you feel uneasy?—So long as it kept out of my mind it was all right, but if I started to think about what I had seen inside it made me uneasy.

23. *The Chairman.*] Are there no check inspectors appointed by the men?—Yes.

24. Who are they?—The last two are Joseph Frame and Nesbit Mackie. They would have taken their turn round the mine, but one is in the hospital, having got his eye hurt.

25. Did the other do his work?—No.

26. How long is it since the check inspectors have been at work?—January was the last inspection.

27. Do you know whether Messrs. Mackie and Frame ever reported anything wrong in the mine?—Mr. Frame has never had the privilege of going round yet. He was appointed in Harrison's stead. I was given to understand they did report, and that the manager said it was a damnable report, and that he would not have it in the books, but would have another inspection.

28. *Mr. Broome.*] Had you any means of testing the quantity of air travelling in the heading or working-face?—No.

29. You said there was not much travelling?—Yes.

30. But you had no means of ascertaining?—No, except by means of the safety-lamps.

31. Simply because there was gas there you say there was not much air?—Exactly; I was going by the quantity there.

32. Is it not possible to have gas in the heading where there is a good current of air travelling?—In my experience, where there has been a good deal of gas and air travelling there has been generally a good many bleeders about.

33. But the presence of gas is not a true indication that no air is travelling?—No; I cannot say you can base your judgment on that. If there have been a lot of bleeders, then I have found gas with air travelling; but in the coal I have found no bleeders, and therefore I concluded there was no air travelling.

34. It is not an unusual thing to have a little gas in a heading even with a quantity of air travelling?—I have always been able to work with safety-lamps unless I was in a soft place. In the Kaitangata Mine, where I have been in solid coal, I could alway get to work with my naked light.

35. You say you felt the brick wall sometimes in coming from work simply out of curiosity?—Just so.

36. How long is it since you felt anxiety about the brick wall, or about that part of the mine?—I had it on me far more before the brick stopping was put in—when the wooden stopping was in—because I wrought in it, and knew what was at the back of it.

37. How long is it since you wrought in it?—Three years ago, putting the fire out.

38. There was only a wooden stopping then?—Yes.

39. With a trap-door quite unprotected?—I believe there was. I was with Mr. Dixon, the deputy, generally, on and off.

40. Do you consider that with the brick wall there now it is safer than it was?—Well, it looks so a long way.

41. You have not the same anxiety now about it?—No, I cannot say I have. You see smoke coming from it and just pass it as ordinary.

42. *Mr. Green.*] You say you were working on the heading when your lamps went out?—Yes.

43. Which heading?—The north side, in the new section.

44. Which heading in the new section?—It is the third heading in. There is no particular name for it.

45. It is pretty well in?—Yes.

46. Is it past the fault?—It is just outside the new dip that is going down.

47. Was it the day-shift when you went to work?—Yes; on the Monday morning.

48. You called at the cabin about 7 o'clock?—Yes.

49. What transpired?—The deputy told me there was a bit of gas there. I was accustomed the previous week to go up and get it out with my shirt.

50. Who was the deputy?—Mr. Anderson.

51. And he said it was all right?—Yes.

52. You say you were a 100 ft. from your face at the time?—Yes, from the air-course—from the stenton.

53. And you got within 40 ft. of the face?—Yes.

54. Did you get to the face afterwards?—No.

55. Did you go back?—Yes; two shifts afterwards.

56. Did any one go before you?—Yes; Mr. Tripp and my drawer (trucker).

57. They were the first to work there after that?—Yes.

58. Have you ever seen it like that with gas before?—Yes.

59. Did you ever go home?—No; I always hung on to it with my shirt; but losing my two lamps I made straight down to the bottom.

60. Has there been anything like that since?—No; they have had the air-pipes up since, and it has been very clean.

61. What is the air like through the stenton?—There is a fair current of air.

62. Was there a fair amount of air, in your opinion, circulating?—Yes, up to this level, but there was no return up the heading and the air was bound to get dull as you went up.

63. What date was this?—It was about this day fortnight, as near as I can judge.

64. *Mr. Donaldson.*] In the event of a fire breaking out in the main drive could you travel the return airway?—No. I have no idea where it is.

65. *Mr. Lomas.*] You said you met Mr. Broome and you were sent to work in a bord: how far away was that from a stenton?—I should say, 30 ft. or 50 ft. away from the heading.

66. Did the manager go into your place that day to look at it?—No. No one came in, to my knowledge. The deputy came round in the afternoon.

67. No one came before that?—No.

68. *Mr. Proud.*] Prior to the air-pipe being put into your place it would be merely ventilated by diffusion?—It would have to depend upon the atmosphere.

69. There was no means for the air to travel up?—No. It would depend upon the day, whether it was clear or not.

70. When you felt the brick wall you said you felt uneasy, knowing what was behind it: kindly describe what was behind the place?—The last experience I had of it was that there was nothing but smoke and fire and conglomerate, and lumps there as big as houses. It was wild. There was a big extent of workings, and the closed heading too, near where the stopping was; the stoop seemed to be all broken.

71. *The Chairman.*] How long has the air-pipe you spoke of been in?—It would be a fortnight last Tuesday, I think.

72. It is within this month?—Yes, I should say so.

73. Was the air-pipe in before the gas was found?—No; after the gas was found. Mr. Broome remarked that it was no good doing anything there until after the pipe was put up.

74. *Mr. Broome.*] Are you not familiar with the mine?—I have worked in every section, bar No. 2 dip.

75. And you do not know the return airway in the mine?—I do not know it at all.

76. Did you think there was so little risk of fire breaking out in the main road, or danger from any other source, that you never thought it worth while to inquire about the return airway?—Who was I to inquire from?

77. The whole of the officials of the company know about it, and they would be the best to inquire from?—We have been talking about it in the pit, and no one seemed to know where it was.

78. Could you not follow the air?—I do not see how a man could with a naked light.

79. Would not the air itself guide you?—If you had the presence of mind to try it that way you might have a chance of following it.

80. Have you known of many fires in the Kaitangata Mine?—A good deal; but more so in the Forest Heading.

81. In all fires which offer a very serious menace to the men employed is it not from the danger of sudden outbursts?—I have seen some very severe fires—what I should term very dangerous.

82. But they have all been successfully coped with?—Yes.

83. And, although there have been fires during eight or nine years past, there has never been any grave danger of a sudden outburst such as to endanger the lives of the men employed in the mine, or in the section where it was?—I cannot say there has. They all seem to have escaped it so far.

84. Do you think the danger at the present time is greater than it has been within the last eight years?—I cannot say it is, than during the last eight years.

85. Do you think there is any more danger?—I do not think there is more.

86. Do you think there is less danger than during the last eight years?—I will not say there is any less, seeing that the brick wall is always a source of danger. The south side is raging sometimes.

87. Do you consider it safer since the brick wall has been built than it was previously?—Yes, and had it been arched I should have liked it better.

88. Are you chairman of the local union here?—I am.

89. And, as chairman of the union, have you not read the reports that have been made by your inspectors?—No. I have not been chairman all along, but only for a term when Mr. Dixon retired to go away for a trip.

90. I suppose you know that the men's inspectors travel the return airway?—They should do. I should say it was part of their business to see to that and test it.

91. Then, if you felt any desire to know where it was could you not have questioned your inspectors about it?—I never had the privilege of seeing their report. I was not in office.

92. Have there not been any inspections since you have been in office?—I do not think so.

93. How long have you been in office?—I cannot tell you the exact date.

94. Were you in office in January last?—I cannot tell you when I took the chair, as I have not the date.

95. Do you know when Mr. Dixon left?—No.

96. Was it a fortnight before Christmas?—I cannot tell exactly when it was.

97. Would you contradict me if I said it was a fortnight before Christmas?—No.

98. And you have been chairman of the union since?—No; Mr. Thomson has been chairman for part of the term.

99. You do not know whether you were chairman in January or not?—I would not say whether I was or not. Mr. Thomson ran a certain term of office after Mr. Dixon retired.

100. You say you were working at the fires at the brick wall three years ago?—Yes.

101. Is it severer now, in your opinion, than it was three years ago?—I should think it was.

102. *Mr. Proud.*] Do you think it would be desirable to have signboards put up in the mine showing the way to the return airways?—Yes. It would be better to take the men through it first, and after that to have a signboard put up showing the return out.

103. *Mr. Broome.*] Do you remember being checked for filling coal with a shovel the day you started to break the bord away?—I do.

104. Who checked you?—Mr. Longstaff, when going his round, for filling coal on the caddie side.

105. Do you remember Mr. McAllister being with Mr. Longstaff?—He came after Mr. Longstaff.

106. I certainly understood you to say that only the deputy visited the place that day?—While Mr. Longstaff and I were arguing the point about filling the coal Mr. McAllister came along.

ROBERT COURT FERGUSON, Miner, examined.

1. *Mr. Broome.*] What are you doing in the mine now?—I am a furnaceman.

2. How long have you been there?—Close on three years.

3. Does the air pass you at the furnace?—Yes.

4. Then, you are in a position to judge of the purity of it: is it purer now than it was twelve months ago?—Very much more so.

5. Do you think it is better than at any time during the three years you have been there?—Yes, I do.

6. In what way?—I think it is much clearer since the tubes were put in.

7. And there is less carbonic-acid gas?—Yes; and not a particle of damp that I can find.

8. And you did find damp before?—Yes, any quantity of it.

EDWARD ROGERS, Miner, examined.

1. *Mr. Donaldson.*] How long have you been employed about the Kaitangata works?—About fourteen years altogether.

2. Have you been employed all the time at piecework?—No. I had three years at one spell on shift-work.

3. During that three years did you have to attend to the stoppings?—Yes.

4. You have wrought in the section of the mine known as the Rogers section?—Yes; I drove the heading.

5. Can you tell how that section was stopped?—It was stopped by the fire that broke out about Forest heading; what they call the big bore in Thomson's level it was known by.

6. Previous to the section being blocked off do you remember a fire that was burning between Forest heading and Rogers heading?—Yes.

7. Had the miners ever to knock off on account of that fire?—Several times.

8. Did they on any of those occasions experience any difficulty in getting out?—Not to my knowledge.

9. What distance had they to go from the face to past the fire?—200 or 300 yards to Rogers heading, to where the fire was.

10. Do you remember a fire being closer to the working-faces in the big bore to the left-hand side of the level?—I remember one being up amongst the timber on the level, about half-way in Thomson's level.

11. Do you remember one morning about 9 o'clock a fire broke out and you had some difficulty in getting out?—I do not remember it.

12. During your three years' experience with the stoppings did you ever see any fire burning through any of the stoppings?—Yes.

13. Have you seen several burn through?—One or two.

14. What shift are you working on at present—day-, afternoon-, or night-shift?—I have been working on all three.

15. Do you remember going home from work off the night-shift on Sunday morning some three or four weeks ago?—Yes.

16. What did you see when you came along as far as the brick wall?—We saw fire from the roof—I and Mr. Anderson.

17. Was the fire dropping from the roof on to the pavement?—Yes; into the gutter or water-table.

18. Did Mr. Anderson make any remark to you?—He said it was all right at 5 o'clock in the morning when he passed it. This was just before 7 o'clock. It was dropping a little.

19. What kind of stopping was it immediately over the main drive at that time?—Planking and sand.

20. What means did you take to suppress the fire?—Put the hose on to it.

21. Did you use the squirter?—Yes.

22. You did not go on top of the drive?—No.

23. You have been on top of the stopping?—Yes; either twice or three times.

24. How did you find it when you went there?—Very warm.

25. Have you seen fire when you have been on top of the stoppings?—Yes.

26. Was it in close vicinity to the roof of the main drive?—Yes; it was rolling down the heading.

27. What is the height from the sand stopping to the roof?—I should say, 10 ft. to 11 ft. That is the highest point.

28. Had you any means of sounding this roof when you were up there to get an idea of its safety?—Yes; there was a piece of scantling kept there for that purpose.

29. When you are on top of this sand stopping what means do you take to suppress the fire?—The hose. We took out all the hot stuff we could.

30. Where does the water run from the hose after it leaves the fire?—It runs down the bottom and through the manhole on to the drive.

31. Have you ever noticed this water coming through the bords?—Yes, after we have been giving it a drenching.

32. And, with your experience of fires, do you think it would naturally follow that where this water runs through the fire such air would be fit to breathe?—I believe it would.

33. What shift were you working on last week?—The afternoon-shift.

34. What time do you leave work?—The shift goes up at 12 o'clock at night.

35. Was there any smoke in the main drive when you were going along?—Not last week.

36. Was there any the week before—was any one working at the fire?—Yes; Mr. Anderson had the doors off at the fire when we came past on the Saturday night.

37. Was there any smoke?—Yes, a little smoke.

38. Have you ever felt the brick wall within the last few weeks?—Yes.

39. Was it hot or cold?—Warm, especially in one place about the centre.

40. If a fire were to break out in the main drive, do you think the main airway could be travelled successfully?—Yes; but it would be very slow.

41. Where were you working on the 4th March?—At a place they call Penman's heading.

42. Has this heading been working of late?—Not to my knowledge.

43. *The Chairman.*] You mean that no one had worked in it for some time?—Yes.

44. *Mr. Donaldson.*] What sort of work were you doing in this heading?—Getting up sand to pack into an old stopping.

45. How did you find the ventilation?—It was a bit close and warm.

46. Was there any black damp?—Yes, a little.

47. How did it affect you and the man who was working with you?—It knocked us up on one shift.

48. How did you feel when you got to the fresh air?—I fell at the mouth of the mine.

49. Did any one assist you?—A man named Arthur Beadle, I think, picked me up.

50. *The Chairman.*] I understand that you went into this place merely to get sand?—We were taking the sand for Penman's heading.

51. You were taking it to put in the stoppings that were in Penman's heading?—Yes.

52. What shift was it, and how many?—There were three shifts. We were there on the Wednesday night, and did not go back, as it was closed off.

53. *Mr. Broome.*] How long ago is it since Rogers heading was working?—Between nine and ten years.

54. You say you have known several stoppings to be burned out: were they timber, or ash, or sand stoppings?—Timber stoppings with ash bottoms.

55. Have you known any ash stoppings to be burned out?—Not when we put in all ashes.
56. Nor sand stoppings?—No.
57. How long is it since the wooden stoppings you refer to were burned out?—I think I and Mr. McAllister had one eleven or twelve years ago, one Saturday night, at the back of the old Cowsie wheel.
58. Has there been any more recent one?—Not to my recollection.
59. I think you said that about three weeks ago you saw fire dropping on to the road from the brick stopping?—Yes.
60. From what part?—About midway of the wall.
61. *The Chairman.*] Was that when some one was working at it?—No; there was no one in the mine at the time except me and Mr. Anderson.
62. Was some one opening the manhole?—No; there was no one there.
63. *Mr. Broome.*] How long were you there?—Just a few minutes. We were just looking at the wall.
64. Were any flames coming out?—No; there was just a little red fire about the size of my hand coming through the planking, and we could see the fire above it.
65. How much dropped out?—A good-sized shovelful fell.
66. Did you close up the hole?—Yes; Mr. Anderson put up a piece of board and clayed it.
67. Was it coming from the side of the stopping?—Right in the corner. It was dropping into the water-table.
68. And was quenched as soon as it dropped?—Yes.
69. How long is it since you were working at the brick wall—at the trap-door?—It is six or seven weeks since I was working at the trap-door.
70. Did you feel the brick wall simply out of curiosity or because you had any feeling of uneasiness about it?—It was not altogether that. It was our duty when knocking about the stoppings to look after things a bit, and I just placed my hand on it, as that was the warmest part. There was no one with me at the time.
71. How long was this ago?—About three weeks.
72. Did you report it?—No.
73. You did not consider it serious enough to report?—No.
74. Do you know anything about the fire behind the brick wall—before the wall was built?—Yes; but I was not there when the fire broke out first. I saw the old wooden stopping before the brick wall was put in.
75. Do you consider this wall has strengthened the safety at that point?—I consider it better than the old stopping, decidedly.
76. You have been working here fourteen years?—Something like that altogether.
77. Is there greater danger now from fires than at any time during that fourteen years?—I do not think so.
78. While you were working at the stoppings were you always able to cope with any outbreaks?—Yes. We have had to abandon places sometimes and shut off a certain section for a time.
79. That is where you had timber stoppings?—Yes, timber and ash bottoms.
80. You said you never knew an ash stopping to burn through?—Not a complete ash stopping.
81. Simply a drainage stopping?—Yes.
82. You never had to abandon a section owing to a block stopping giving way?—No.
83. You were working a little while ago carrying up sand to a stopping in Penman's heading?—Yes.
84. How long were you working there?—Three shifts.
85. How long had you been working on the day you felt the ill-effects?—I came on at 4 o'clock in the evening and left about half-past 12.
86. Did you feel any ill-effects when working there?—Yes.
87. Did your light burn?—We were not allowed to take our naked lights there. We had safeties burning.
88. Where did you say you were picked up?—At the mouth of the mine, when I came to the fresh air.
89. Was Mr. Beadle with you?—Yes; he came out just behind me.
90. Do you remember being picked up?—Yes; I was not unconscious.
91. *Mr. Proud.*] How was that heading ventilated at which you felt the effects of black damp?—It is stopped off now. There was a good current of air going down then, but it was warm.
92. But there was not sufficient to carry away the black damp?—No.
93. *Mr. Lomas.*] You said just now that when you turned the hose on to this fire it washed the sand off the board that covered the place in the main drive?—Yes.
94. Did you do anything to cover up those joints before you left it?—Yes.
95. You did not leave them open?—It was all clayed up before I left it.

MONDAY, 18TH MARCH, 1901.

JOHN IRVINE, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years' experience at coal-mining have you had?—Fifty-four years.
2. How long have you been about the Kaitangata works?—About twenty-five years.

3. Were you at all acquainted with what was known as the crosscut in the Kaitangata Mine?—Yes; I know the crosscut in the south side.

4. Do you know of any coal left in there which might have been got out?—I could not say anything about the coal up there. I never had charge of it. I could not say what would be left in.

5. Do you know the south-side workings of the present drive?—Yes, opposite dip No. 3.

6. Is it blocked up at present?—Yes.

7. What was the reason for blocking it off?—It has been opened since I was there, but it was blocked off on account of the fires in the workings.

8. Is there any coal there to your knowledge which, if there had been no fire, would have been available?—Yes; there is a good lot of coal left in. It is hard for me to say how much, but there is a great quantity.

9. Is it a greater distance to haul the coal from the south side than from any other part of the workings?—It is nô further than others at the present time.

10. Would the haulage be higher than in some parts of the present workings?—I think it would be.

11. Do you know if it is blocked and packed up at present?—Yes; the south side.

12. You were down the mine on the morning of the 15th?—Yes.

13. I suppose you saw the south-side stoppings?—Yes.

14. Did you see anything wrong with any of those stoppings?—I felt the south-side stoppings a bit warm through the sand.

15. Did you see any of the stoppings in Macdougall's heading?—Yes; I examined three or four, and it may be four or five.

16. What condition were they in?—I found two of them very hot. The second top one was very warm.

17. Where was it hot?—All over it. Most of the heat was on top of the coal.

18. When that stopping gets hot on the top what would be the tendency?—Where the hottest part is the fire would be the nearest to it, and if the fire is travelling towards it it must get through.

19. You went round the workings in Macdougall's heading?—Yes; round inside.

20. How did you find them?—I found one stopping inside a bit warm back from it in the bottom. I did not find any heat along the south side of Macdougall's heading.

21. You examined some of the stoppings on the Drum level?—Yes; I examined four, I think, and one I could not get to at all.

22. What was the reason why you could not get at it?—There was gas there and a little damp.

23. Have you any idea what is causing the gas to exist at the stopping?—The stopping is not tight and the gas comes through it, and with a low glass it comes out stronger. With a rising glass the gas would be weaker outside.

24. Supposing the gas was lit at one of those stoppings, what would take place?—If the gas were allowed to go into one stopping that is closed with fire inside it would light and burn the stopping if a wooden one, but it would not explode. It would burn all round the place, and set fire to the coal as well, if it could not be got at.

25. What would take place when the stopping burned out?—It would fill the workings full of smoke during the time it was burning.

26. On the morning of the 16th you visited some stoppings in the level approaching the return airway: that was on the Saturday?—Yes; there was a little damp in then, going in the south side.

27. Afterwards you travelled the return airway, say, from the flues to No. 3 dip?—Yes.

28. What condition did you find the return airway in?—From the flues down to the bottom was not so bad, but after you got out of that stone drive it was pretty small in places. A bigger airway would carry more air.

29. As a travelling-road, or as a road on which men would be likely to travel on some occasions, do you think it is in proper repair?—Well, they could get through it, but in places it would require repairs.

30. You visited the workings in No. 3 dip?—Yes.

31. Were you in No. 7 lift at all?—Yes.

32. In what condition was the place known as "Coulter's bord"?—You could not get into the face of it.

33. For what reason?—Gas was standing in it, and the lamp would not burn.

34. How many feet of gas do you think would be in it?—I do not know how far it was from the face.

35. Do you know a place known as "Duncan's level," between No. 3 dip and the north-side workings?—Yes.

36. Is it working at present?—I do not think so; there is no road to it.

37. Did you go in there at all?—Yes; to the face of it.

38. What condition was it in?—It was in a very bad condition. There was no fence in front of it, and from about 300 ft. to the face there was gas, and from there into the face all the way.

39. Did you take a reading of the glass in the morning?—Yes; and I think it was about 30.25.

40. Do you know whether it was falling or rising?—Rising, I believe.

41. Supposing the glass had been falling, with your experience of the Kaitangata workings, what condition do you think Duncan's level would have been in?—You would not have got into it, I think, for that last 300 ft.

42. What condition was the return airway in from No. 3 dip to the north-side workings?—It is very small to what it should be.

43. You visited the north-side workings?—Yes.

44. What condition did you find them in?—I had nothing to find fault with; they were pretty fair when I was in.

45. How long ago is it since the north-side workings were opened from the fault?—I think it would be about twelve months when they were going through to open it.

46. Did you visit No. 2 dip?—Yes.

47. What condition did you find that in?—I did not consider No. 2 dip out of place much. It was a little bit close, but nothing more.

48. Are you at all acquainted with the stopping on the Drum heading—that is, near the foot on the left-hand side?—Yes.

49. What is the stopping?—It is either ash or sand. I would not say which at the present time; but it was a wooden stopping at one time.

50. What took place at this wooden stopping on the night of the 5th June last?—It went on fire and burned out altogether, so the man Brown said. About an hour before he went away to get water, and before he got back the stopping was burned out. Some little time after a man came down the heading and told me that fire was coming out right on the Drum heading. He asked me to go up, and I went up and started some of the men to carry water to it to keep the fire back. The pipes that should have had water in them were broken, and the flames came out and rushed 20 ft. up the heading, as far as I could see.

51. Were any men working in the inside workings?—Yes; I think there were three parties inside of that.

52. How did they make their escape?—About 300 ft. in there is a road which went down to Macdougall's, and they all escaped by that way. I believe some of them escaped without their clothing—they did not have time to pick it up.

53. Supposing the men could not have got down Macdougall's heading, do you think it possible that they could have gone down the Drum heading?—No; it was not possible to do so. It was not possible to throw water into it where the air was coming up.

54. Do you know the part of the workings known as Rogers heading, about 20 or 30 yards from the brick wall?—Yes.

55. Are there any workings inside that heading?—Yes; that heading is 5 chains up.

56. Those workings are blocked off at present?—They were blocked off when I left, and they are blocked off now.

57. Is there any coal left there which might have been taken?—There is a little coal left in near the bottom on the south side. There is a big block of coal on the other side, but further up there is not much. All was worked out at that time which could be got.

58. But there is coal which, under ordinary circumstances, could have been got?—There is a little coal, but I do not think they will ever get to it.

59. Are you acquainted with No. 1 dip workings?—Yes, well.

60. Are those workings blocked off at present?—Yes; when I left there last June.

61. What is the reason for those workings being blocked off?—There was fire in the bottom lift of the dip and one in the top lift, and the bad smells and damp that came up made it so bad that the men could not work in them. It was too hot, so the places were blocked off.

62. Has all the coal been taken out which, under ordinary circumstances, might have been taken out?—No; no coal has been taken out in comparison with what is in it. The biggest part of the coal is there at the present time. No stoops have been taken out.

63. Do you remember what took place about 6 o'clock on Saturday night last?—Yes.

64. Were you present when they removed the doors from the drive?—Yes, I was there.

65. What took place when the doors were removed?—They nailed up a screen across the main drive to force the air up one hole and to let it come down the return on the other side.

66. What was the first thing you saw on entering the main drive?—Smoke.

67. Did any one try to go up?—Yes; Mr. Anderson went up after it had been opened a few minutes, and was up there some twenty minutes, I suppose.

68. What was he doing?—He asked for the hose, and then wanted the water put on.

69. How long would he have the water running before you attempted to go up?—It was twenty minutes or half an hour before I attempted to go up.

70. Where did you find Mr. Anderson then?—I asked him to stop the water in order to let us go up, and I found him up there with his head close down on the sand.

71. Was he where the fresh air was striking him?—Yes, it went right to him.

72. How long did you remain up there?—Not more than three or four minutes—not over five, I think.

73. Do you think it was at all possible for you to go in further than, say, 2 ft. from the trap-door?—You could not go any distance. You could not put your head out of the fresh air.

74. Are you acquainted with the centre heading?—Yes, particularly; I was there when it was put up.

75. Was there a stopping there at one time?—Yes, when I left. It was up about 30 ft. from a hole you have to go up to get to it.

76. Do you know if there were props there at one time supporting the roof?—No, only what the stopping was built on.

77. Did you visit this stopping previous to leaving the employ of the company?—I visited that stopping every day.

78. What condition was it in then?—When I left there was no fire near the stopping—no warmness whatever. That was at the end of June last.

79. Now, with the experience you have had of the Kaitangata workings and of the fires in them, if something effectively is not done to put out those fires, what do you think the result will be?—

I think they will lose the drive altogether if some action is not taken; and if the fire does come out in it, it is impossible for the men to come through it.

80. If the stopping on the roof of the main drive had been made tight, what would have been the tendency?—It would not have let the fire through if the stopping had been tight.

81. We will suppose that it had been left for another week, on the theory that the stopping was tight before being opened, what do you think would have been the result—what condition would the centre heading have been in?—It must have been that hot that they could not have got into it on any conditions, or in any shape or form, if they had let it stand to that pitch. That is impossible.

82. Do you think timber props are sufficient to support the roof in that particular place?—No, I do not think so.

83. What means do you think should be adopted to suppress the fire at present existing, with the experience you have had of fires in the Kaitangata Mine?—If I had to speak according to my opinion, I would open the place up and go into it and keep at it until I had got it out. If I could not go in one day I would go in the next day, and would not stop until I got it out. If it is not put out it will come to something worse.

84. *The Chairman.*] How would you put it out?—I would open it up, and put it out with a good supply of water.

85. *Mr. Donaldson.*] What part of the mine had you charge of in October, 1899?—I think it was taken out of my hands at that time. I was there, but I do not think I had charge.

86. Who had charge of the Drum heading?—Mr. Barclay came on after me.

87. Did you go round the places in the Drum heading and examine them in the morning?—Yes.

88. Did you find any gas in any of those places?—Yes, in nearly all of them at different times, but not in all every morning. If the barometer was very low I would find gas in certain places.

89. *The Chairman.*] Did you so report?—Yes, every morning.

90. *Mr. Donaldson.*] Was there any one else who had charge of any particular part of this Drum heading?—When it was taken out of my hands I believe Mr. McCormack took charge of the east part. I was given to understand so.

91. Did you report gas frequently in the month of October?—Whenever I saw gas I reported it.

92. Did you ever pass remarks to Mr. McCormack about seeing gas in the particular part he had charge of?—Every time I saw gas I told Mr. McCormack, and where I had seen it.

93. Did he seem to pay attention to what you said?—Yes; he said he would look out for it.

94. *Mr. Broome.*] You said that one or two stoppings were a bit warm. There was one stopping in Macdougall's referred to: did you see if there was any water in the pipes for the purpose of cooling the place?—No; there was no water at the stopping at all.

95. How do you know?—There was no hose there.

96. You said the stopping was very warm?—Yes.

97. Could you put your hand in the sand?—Yes.

98. Did it burn your hand?—No; but it was very warm, for all that.

99. Was it blood-heat?—Yes; a little more than that.

100. Did you have to put your hand very far in to feel the warmth?—No; just on the top of it.

101. Do you consider the stoppings generally are now in a worse condition than when you were there?—Yes, I consider that stopping worse.

102. Do you consider the stoppings generally are worse?—Yes, I think so; but I will not say all. Some are, and some are not.

103. Is the return airway better now than when you were there, say, twelve months ago?—I do not think it is any better, but I am not prepared to say it is any worse.

104. Did you ever have to blast away stones in the return airway to make the air go through?—Yes.

105. Did you find a condition of things like that the other day?—No; I did not go up to that place.

106. Where were the tubes put in?—Up above there.

107. Were you not through the tubes?—I was up to them.

108. Where did the stone come from to block the airway?—It was up above that.

109. Where the tubes were put in?—I do not think it was.

110. It was below where the tubes are?—I do not recollect that.

111. It was below where the tubes are, and it was below the tubes where you had to get the return of air, and yet you say the return airway now is not better than it was when you were there?—I do not say it is better.

112. What was the smallest place you found when you were there the other day?—I should say about 4 ft.

113. And you tell me that a place 4 by 4 is not better than a place that was entirely blocked?—Yes. Of course, if it was entirely blocked then it must be better now.

114. It was entirely blocked when you had to blast your way through?—It was not entirely blocked, although there was a stone down.

115. Could a rat have got through it?—Oh, yes.

116. As to the heating of the workings generally, is there anything to compare now with the south-side workings of twelve months ago?—I do not think there is.

117. I am speaking of the south side, which was blocked off shortly after I came here, where you used to go to a place half an acre in extent and play on it with a hose: is there anything like it now?—I do not think so. I do not think there are any workings now so hot as that was.

118. Did you ever have six or seven fires at one time to contend with, and with three men helping you?—I do not think we had six or seven, but we had perhaps three or four.

119. You had to take them in rotation?—Yes.

120. Have you anything like that now?—I think there is something in the same way.

121. Did you always report gas when you found it?—I did.

122. I suppose you always travelled the working-place before you reported it?—Yes.

123. You did not report without travelling the working-places?—No.

124. Do you think it would be possible to find gas immediately after you had visited it and reported it clear?—It is quite possible for gas to have accumulated after I had left.

125. Say, a good quantity within half an hour after?—I do not think any great quantity would gather up in that time if the air continued to go into the place the same as when I was in it.

126. Do you know that gas has been found after you had reported the places clear?—Not that I am aware of.

127. You say that your lamp would not burn in No. 3 dip when you were down there the other day—the 15th?—The lamp burned as far as we could get in.

128. In answer to Mr. Donaldson, you said the lamp would not burn?—It burned when I was standing, but Mr. McCormack said he could not go in any further. He was asked how far it was to the face, and he said about half a chain.

129. Do you know what it was in there: was it black damp?—I did not go in and try it myself. I stood back.

130. You went down officially to examine the mine, and you do not know what it was?—Mr. McCormack said it was half a chain from the face.

131. You do not know whether it was gas or black damp: was anything at all there—you say you did not try to get in?—I was given to understand that Mr. McCormack could not go any further, so I did not go into it.

132. You were there to examine the mine and were not stopped from going into any place?—I was there to see if the place was right.

133. Did you see my deputy's lamp go out?—No.

134. You spoke of a stopping burning out on the 5th June: had that stopping been attended to?—It was supposed to have been attended to, but whether it was or not is more than I can tell you. I do not think it could have been.

135. But it would not have burned out if it had been attended to?—No; I suppose not.

136. These stoppings do not burn out if they are attended to?—Not if they are caught in time.

137. Then, how was it you never attended to the stoppings?—If I found any coming near to firing I put water on to them.

138. Was it not your duty to examine the mine?—It was my duty to see that the stoppings were examined.

139. When were you at that particular stopping before?—I was there at the beginning of the night, when it was a bit warm.

140. And you did not attend to it?—I did not have charge of that.

141. And because you were not in charge of a certain section of the mine, and because the blame would fall upon somebody else, you let the stopping burn out?—I did not do that.

142. You say that a tight stopping will not let fire through?—If air does not get into the stopping the fire will not get out.

143. That being so, I suppose a tight stopping will put a fire out?—If it is tight enough it will. Nothing can live where there is no air.

144. Have fires been put out in that way in Kaitangata?—Many a one. They are made tight and damped down.

145. And why could not the brick-wall fire be put out in that way?—It never was tight.

146. Did you notice a brattice hanging over the top of the drive inside the stopping when you were there on Saturday?—I could not see any for smoke—it was full of smoke.

147. What would have been the result if your stopping on the level of the drive, on the left, had been left for a week?—If that stopping had been left for a week before the brick wall was up, and the fire had been coming near, I should not have gone into it.

148. Supposing you had left it entirely the same as the brick wall?—The fire would have come out some time.

149. If left for week could you have got back again?—I have no doubt the fire would have come in a week.

150. You were not over the drive at half-past 10 on Saturday night, after the place had been open for two or three hours?—No.

151. If the fire would come out at your stopping if left for a week, and it came out of the brick-wall stopping after it had been left open for a few hours, you must admit that the present stopping is much more effective than the stopping you used to water every day?—I do not see that it is.

152. You were dismissed from the company's employment?—I could not say whether I was dismissed or not. I was told I was not wanted any more, anyhow.

153. And naturally you have felt sore about it ever since?—You did not tell me what it was for.

154. *Mr. Green.*] In reply to Mr. Donaldson, you said you remembered the month of October, 1899?—Yes.

155. You also told us that you examined the workings every morning?—Yes.

156. And that if gas were present you reported it?—Yes, if I saw it.

157. How many times did you find gas during the month?—I have no recollection of any date, but I have no doubt it would be in the report-book.

158. You said you remembered the month—your attention was specially drawn to it?—I could not say how many times I reported it in that month.

159. Did you find any gas during that month?—I could not say. If I did I put it in the report-book.

160. Can you remember any place where you found gas?—I found it in the Drum level—the top level.

161. How often did you find it there?—I could not say.

162. You found it once?—Yes, as far as my recollection goes.

163. Did you find gas more than once?—Yes.

164. Did you find it twice?—I dare say, two or three times.

165. And you reported it?—I reported it whenever I found it.

166. Did you find it in any other place?—Yes; I have seen it up in the second bord, up in the top off the heading, where the self-actor is—what is called a jig.

167. Do you know if the heading had a name?—Only the "self-actor." It was just a very short one.

168. How often did you find gas there?—I recollect finding it on one occasion.

169. Do you think you found it more than once?—I could not say, it is so long since.

170. Did you find gas in any other place?—Yes; I found it in a heading further in.

171. Had that heading a name?—I think that was the Machine heading.

172. And how many times did you find gas in the Machine heading?—I could not say how many times.

173. Did you find it more than once?—I could not say.

174. Did you find it in any other place?—I cannot say I did.

175. Did you find it in any other place throughout the workings you examined besides the three places you have already named?—I found it at different times in all the workings.

176. In the month of October, 1899?—I am no prepared to say. I cannot remember that much.

177. Did you not tell Mr. Donaldson that you did remember the month of October?—Yes; but I cannot recollect finding gas all over the place. I cannot say what part.

178. You cannot remember whether you found gas in any other of the workings in your section?—I went all over—not one section, but all over the mine.

179. This is the Drum heading section we are speaking of?—Yes; if I found it it would be reported.

180. It will be on record with your signature?—Yes, I think it will.

181. *Mr. Broome.*] You say you examined the Drum section on the 16th October, 1899, in answer to Mr. Donaldson, and found gas there and reported it?—If I said so, of course I am prepared to stick to it; and if I saw gas I reported it, I believe.

182. You were reporting on the Drum section during October?—Yes; I think I was on that section.

183. Do you know whether you reported on the 16th October?—I will not swear to the date. It is so long since, and I have not had an opportunity of seeing the report.

184. You say that Mr. McCormack was in charge of the east portion of the section?—I was given to understand so.

185. Who told you?—I understood so from his own actions. I will not say that any person told me individually. I understood he had charge where the machines are.

186. You do not know whether he was appointed in writing?—I could not say.

187. Do you remember the nature of caution you gave to him about the gas?—I just told him that it was a low glass that morning, and there was gas in a certain place, and he said he would look out.

188. You do not know who took the men's time in that section?—No.

189. I suppose the man who took the time would be in charge?—I cannot say who took the time, unless it was Mr. Barclay. I know I did not.

190. *Mr. Proud.*] You referred to a great deal of coal being left?—Coal was left in some places, but not in others.

191. That coal may be worked again, I suppose: it is not lost?—No; it is left there. If the main drive is closed, or they lose the run of it, that coal will be lost. If the drive is put in proper order, and the fire is put out, I have no doubt that, with perseverance, they will get it.

192. They may get the whole of it?—Yes.

193. You referred to gas being in some of the places: how long would it remain in?—When you see gas you have to clean it out.

194. It would not remain there more than a shift?—No. If it becomes too much you have to take the men out and keep the air going into it.

195. You think the return airway should be enlarged?—I think it would carry much more air if it was.

196. Do you think that generally the airways are in a better state than hitherto?—I do not say better, but I think they are equally good.

ALBERT DUNN examined.

1. *Mr. Donaldson.*] How many years have you been employed about the Kaitangata works?—Ever since it started—pretty well about twenty years.

2. Do you remember anything particularly which took place between the 11th and 14th February—last month?—Yes; I was working on the north side.

3. Were you working in a level or bord?—I was put in a stenton from one bord to another.

4. How was the stenton ventilated?—With an air-pipe and compressed air.

5. Was it customary to work with naked lights or with safety-lamps?—Safety-lamps.
6. Was the gas lit at any time between the 11th and 14th February?—Yes; I think it was the 13th that the gas was lit.
7. Did you test the gas previous to it being lit?—Yes.
8. Did you find much gas existing?—Yes. It was lit with a naked light, or something of that sort, I think, and the gas went off.
9. What did you do?—I got as low down as I could underneath the air-pipe.
10. I suppose the air-pipe was blown on top of you?—Yes.
11. Was any one working with you?—Yes; Duncan.
12. How did he escape being burnt?—He was filling a box, I think, at the time, and the box screened him a good bit from being burnt.
13. Did any of the officials visit you during the day?—I do not think so.
14. Did they know of the existence of gas?—I cannot say.
15. Do you remember what the deputy said when he gave you the lamps in the morning? Did he say the place was clear, or that there was any gas there?—I believe he said it was a bit dull, and that I should be careful.
16. You do not remember whether any officials visited your place or not?—No.
17. You are not aware of how the gas was lit?—No.
18. Did you get your safety-lamps after the explosion?—No; I chucked them both down when the gas went off.
19. Was that about knocking-off time?—It was in the afternoon.
20. Did you go home then?—Yes.
21. Did any of the other men go home?—Yes; the men in the level that I was in went home.
22. *The Chairman.*] Did you report this?—As we were going out we met Mr. Broome and Neil McAllister, and told them what had happened.
23. What did they say?—Neil McAllister said, "You had better come back to the face." I said, "No, I do not think I will go back, as I could not get in again on account of the after-damp."
24. *Mr. Donaldson.*] Did you go to work the next morning?—Yes.
25. What took place at the cabin?—I was told at the cabin that in the place I had been working at they had got through, and there was no place for me.
26. What distance was this stenton you had put through?—About 30 ft., I think.
27. You went into your working-place?—I went out, and was told my place was finished, and he said I could go into another man's place who was not out that morning.
28. Did you go?—Yes; and worked until dinner-time.
29. What did you do then?—I went home at dinner-time because I had no tokens.
30. Did you see the manager or any of the underground officials when you were going home?—I met Mr. Broome at the bottom of the drive. He asked me about it, and I told him the reason I was going home.
31. *The Chairman.*] When you went there the next morning you were that told the stenton was driven through, and that there was no place for you, I understand? You were told to go back in another place, and you went home because you had no tokens, you say: you did not go to work again?—No; I had no place to go to.
32. Were you prevented from going to work?—No.
33. *Mr. Donaldson.*] Since you lit the gas on that occasion have you been sent to work in a place where gas existed?—I do not think so.
34. Were you at any time previous to that occasion?—No.
35. Do you remember the 27th February?—Yes.
36. Were you working on that particular date?—I think so.
37. Were you working on the 28th?—I cannot recollect the dates.
38. About the latter part of February were you working in No. 2 dip?—Yes.
39. Had you occasion to go home at that time in the day-shift?—Yes.
40. And the next day you went to work?—Yes.
41. Did you work that day?—It was either the next day or the day after that we were told we could not work. We had to go home, as they were going to break through the level.
42. *The Chairman.*] You remember that you were working in No. 2 dip about the end of February?—Yes.
43. On another occasion, about that time, did you find gas in the place in which you were working?—No, not in the place I was working.
44. Or any other place in which you were working?—No.
45. Do you know if gas had been found?—I heard of a man in the old level having to work with safety-lamps—in the level above me.
46. How did you know?—I heard the deputy tell him in the morning.
47. *Mr. Donaldson.*] Did the underground official tell you to go home?—Yes; the next day, as they were going to break through, and we went home.
48. Did he say why he sent you home?—Yes; he said he would give us safety-lamps, but could not trust the safety-lamps to boys.
49. You were working on the north side?—Yes.
50. What was the condition of the trucking-road last month?—It was pretty wet in places.
51. Do you think it was in a fair condition for lads to truck in?—It was not bad when I was in it.
52. I suppose you saw the road there just after the nine or ten truckers had been discharged?—Yes, I believe so.

53. *Mr. Broome.*] What was the condition of your safety-lamps when you were working in this gas in the north level?—Mine was right enough, and I never heard anything about them after the gas went off.

54. Of course, you examined your lamp?—In the morning, yes, when it seemed to be all right.

55. I suppose you know that, according to a special rule, you have no right to take a lamp in without examining it?—I always look after my own if I am working a safety-lamp.

56. Do you know who lit the gas there?—I could not say.

57. Do you remember what McAllister asked you when you came out of that place? Do you remember if he asked you if you had been "monkeying about" with a naked light?—I do not remember that.

58. Was the level blowing very much at that time—was much gas being given off?—Yes, a good bit that day.

59. Was there more gas there then than you had seen before or have seen since?—There was a good bit there. I have not worked there since.

60. Was that the first day you worked there?—Yes, it was the first day of the cavil.

61. Were you only working one day in the end?—One or two days.

62. Do you know how much yardage you had there?—10 ft., I think.

63. Were you burnt at all?—No.

64. Was any one else?—I do not think so.

65. If there had been very much gas there, would not some one have been burnt?—I think the air-pipe saved me. I had the presence of mind to get underneath the pipe.

66. How much gas was there in the place?—I could not get my lamps off the pavement just before it was lit.

67. Was there not gas in your lamps?—Yes; I was just leaving the place when the gas went off.

68. Do you not know that it is against the law to work in a place with gas?—I worked as long as I could, and was just going away at the time, and I chucked the lamps down.

69. Did that act set the gas off—you are not supposed to throw your lamps down?—I had two lamps in my hand, and I just picked them off the floor when off the gas went.

70. *The Chairman.*] There was no naked light there?—No; I could not say how it was lit.

71. *Mr. Broome.*] Is it not a usual thing to have a little gas in a stenton just being driven?—Yes.

72. Even as much as 2,000 per man per minute?—I could not say.

73. You do not remember whether any official came into your place that day?—No.

74. You do not remember Mr. McAllister and myself being there when you were sitting down to your dinner?—I believe you were there at dinner-time.

75. And this gas was lit just just afterwards?—Yes, after dinner.

76. Had you left your lamps burning in the place all through the dinner-time?—No.

77. I suppose there was no gas where you were getting your dinner?—No.

78. And the lamps would be perfectly cool then?—Yes.

79. You do not know if any one struck a match to light his pipe, or came in with an open light?—No.

80. Have you ever seen gas in No. 2 dip?—No.

81. Never in any part of it?—No.

82. *Mr. Green.*] Where was the stenton you were working on the 13th February?—On the north level by the self-actor.

83. What is the name of the deputy who gave you the lamps in the morning?—Mr. Anderson, I believe.

84. *Mr. Proud.*] Did you observe whether the place had been examined by the deputy before you went in next morning in the place?—Yes.

85. Do I understand you to say that you threw your lamps down?—Yes, when the gas went off.

86. Do you not know that is a very improper thing to do?—Well, I did not want to carry much with me when the gas went off.

87. *Mr. Lomas.*] How far was the air-pipe from the working-face?—About 12 ft., or perhaps more.

88. Was it blowing at the time?—Yes.

89. You say that your lamps were on the ground?—I could not get them higher than the pavement.

90. Do you know that it is contrary to law to put the lamps on the pavement?—Yes.

TUESDAY, 19TH MARCH, 1901.

WILLIAM BARCLAY, Miner, examined.

1. *Mr. Donaldson.*] How long have you been about the Kaitangata works?—Eight years.

2. Are you the secretary of the Employés' Benefit Society?—Yes.

3. Do you know if there was any correspondence passed between you and Mr. Watson *re* the annual picnic?—Yes. Mr. Watson wrote stating that he regretted that the company could not assist this year. [Correspondence produced.]

DEAR SIR,— Kaitangata, 26th January, 1901.

By direction of the chairman I have the honour to inform you that a resolution was passed by the Employés' Picnic Committee, instructing me to ascertain if your company would convey employés by train to Mount Stuart on the 15th or 22nd February, as usual.

Trusting you will acknowledge our request,

Yours, &c.,

W. P. Watson, Esq., Dunedin. WILLIAM BARCLAY, Secretary, Picnic Committee.

DEAR SIR,— Dunedin, 30th January, 1901.

I beg to acknowledge your letter of the 16th instant, conveying the resolution of your Picnic Committee.

I am instructed by my directors to say, in reply, that, as the company's outlay both at Kaitangata and elsewhere has for a very considerable time been of such extraordinary magnitude, they regret that they cannot see their way to contribute anything to your committee on the present occasion.

Yours, &c.,

Mr. William Barclay, Kaitangata. W. P. WATSON, General Secretary.

4. Have you been discharged from the company?—I do not know.

5. Did you receive notice of dismissal?—Yes.

DEAR SIR,—

As you have deemed it fit to disregard instructions, and absent yourself from work without leave, I have to inform you that your services are henceforth dispensed with.

Yours, &c.,

William Barclay, Secretary, Picnic Committee. GEO. H. BROOME, Mine-manager.

6. Do you know if on any occasion the picnic has been held on a Saturday, the day suggested by the company?—No.

7. How many days did the mine work the week the picnic was held? Was the mine idle at all?—It was idle on the Wednesday afternoon, as well as on the Friday.

8. *The Chairman.*] Was it idle all day on Wednesday?—Only on the afternoon shift.

9. *Mr. Donaldson.*] Do you know whether on any other day that week the mine was idle?—I do not remember.

10. *Mr. Broome.*] Do you know why the picnics have never been held on the Saturday?—It is customary for the Railway Department to fix the day. It was convenient on Friday this time.

11. *The Chairman.*] Would there have been any difficulty in getting Saturday on this occasion from the Railway Department?—Yes. We decided to hold the picnic on Saturday, but as there was no proper holiday for the school we held it on the Friday.

12. *Mr. Broome.*] Your only reason was to give the children a day from school on the Friday?—Yes.

13. Do you know whether I made a suggestion to Dunedin that the picnic should be put off till the next Friday?—I understood that you did not reply to the Dunedin office until the night before the picnic. You did not reply by letter.

14. Can you tell me why the mine was idle on Wednesday afternoon for the half-shift?—No.

15. Do you know that it was for want of wagons?—No.

16. You would not contradict that statement that it was for the want of wagons?—I do not think I could.

ADAM THOMSON, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years' experience have you had as a practical coal-miner?—Forty-two or forty-three years.

2. How long have you been employed by the Kaitangata Company?—About thirteen years.

3. Have you felt uneasy of late while working in this mine?—Yes.

4. Why?—That brick wall sometimes smokes.

5. Have you seen it smoke?—Yes.

6. Have you any boys working in the mine?—Yes, I have three sons.

7. You were one of the four who were discharged?—Yes.

8. What were you on the picnic committee?—The vice-president.

9. Had you been discharged at any time before that?—Yes; I was discharged by Mr. Shore.

10. How long were you idle?—Six months.

11. Did he give you any reason for discharging you?—He gave me no explanation.

12. Were you a member of the union?—Yes.

13. Were you taking a prominent part in it?—Yes.

14. How long has the union been in existence?—It would be some months.

15. While members of the union have been discharged, have you known of non-members being discharged?—No. I have known them to be engaged and brought from the North Island while members of the union have been going about idle.

16. Do you consider that the non-unionists that were engaged were more competent than the unionists?—No.

17. Do you think the unionists are more competent from what you know of them?—Yes.

18. *Mr. Broome.*] When were you previously dismissed?—About two and a half years ago.

19. Who was manager then?—Mr. W. M. Shore.

20. And this is the time you speak of when non-union men were brought from the North Island?—Yes.

21. It has not happened recently, or since I have been here?—No.

22. *Mr. Proud.*] Was it for want of employment that you were discharged?—It could not be from want of employment when they took other men on.

23. *Mr. Lomas.*] Had Mr. Shore ever complained of your conduct as a miner or as an official of the union?—I do not know that he ever spoke personally to me.

24. Did he say anything that would lead you to believe it was that?—No, he simply cut me off.

25. *The Chairman.*] No complaint had been made?—No.

26. And no accident had happened through you?—No.

27. *Mr. Lomas.*] Had anything been done by the union to irritate the management?—No, not that I know of.

28. *The Chairman.*] Were you the only man that was cut off?—I think two others were cut off as well.

29. *Mr. Lomas.*] Were men discharged other than the officials?—There were thirty men discharged, and I think they were all members of the union.

30. How many officials were discharged?—I think there was Penman, myself, Hayes, Crow, Donaldson, and Cunningham.

31. Were all those you have named on the committee appointed to inaugurate the union?—Yes.

32. *Mr. Proud.*] At one time were not the miners and the employers on good terms and working amicably together?—The working-men had just to do what they were told at one time.

FREDERICK ANDERSON re-examined.

1. *Mr. Broome.*] What position do you hold?—Deputy.

2. Do you examine the safety-lamps in the morning?—Yes; but not lately—not for the last four weeks or so.

3. You heard the evidence given to day?—Yes.

4. You heard what was said about the lamps being blown out?—Yes.

5. Did you examine these lamps on the day the gas was lit in the north levels—the lamps given to Penman?—Yes.

6. How do you account for them being blown out after you examined them?—I cannot account for it in any way.

7. Did you carefully examine them?—Yes. I am trying to make out why Penman did not show them before he left the cabin.

8. You do not think they were tampered with, do you?—There was something wrong with them. I had tested the lamps, and blew them before giving them out.

9. It has been stated in evidence that you were present with Rogers when a fire was discovered at the brick-wall stopping three weeks ago?—Yes, on a Sunday morning.

10. You remember that?—Yes.

11. Will you describe what took place?—We were going out about 7 o'clock in the morning. We just smelt a little smoke, and so I proceeded in the direction of the brick wall, where I found a small hole, about as much as you could put your finger up through the bords, which had burnt through. I got a hose and put it out.

12. What is the maximum amount of time that that stopping has been left?—During my night-shift for about two hours.

13. You saw what fire there was then?—Yes.

14. Do you think if it had been left for two hours there would have been any serious outburst?—No; there was nothing to feed the fire. There was 1½ in. timbering and sand to stop it from spreading.

15. *Mr. Donaldson.*] Do you say there was a hole burnt in the stopping?—Yes, in the planking in the roof.

16. Would the air get through this hole?—There would no doubt be a little get through.

17. What tendency would that have on the fire?—It would make it burn a little better, providing there was sufficient fuel to keep it burning.

18. You found an accumulation of coal when you opened up this place the last time you were there?—Where the fire broke out was in a different place to that.

19. This fire must have been coming from the coal?—But in the place I was speaking about there is no coal. The most you could get would be about a couple of handfuls.

20. If the coal dropped down, is it not possible there would be an accumulation there?—No, it was solid round about.

21. And the fire was dropping where it was solid round about?—It was a very small proportion.

NEIL MCALLISTER, Miner, examined.

1. *Mr. Broome.*] How long have you been engaged in coal-mining?—About thirty years.

2. How long in the employ of the Kaitangata Company?—Between sixteen and seventeen years. I have been away about two years out of that.

3. What capacity have you been engaged in during this time?—As a roadman and deputy.

4. You have had a good deal of experience with fires during this period?—Yes.

5. And with stoppings?—Yes.

6. What is the state of the stoppings at the present time generally compared with previous periods?—I think they are in a better condition than I have seen them for a good many years.

7. As to the safety of the brick wall, do you consider that in a safe condition?—Yes.

8. Do you think it possible for a serious outbreak of fire to occur while the men are in the mine such as would interfere with their exit?—No.

9. Is it left for any length of time without inspection?—No.

10. What would be the longest period?—I and other underviewers are passing daily—almost every hour—and on Sunday as well.

11. What would be the longest period without inspection on Sunday?—About three hours, and sometimes two. Sometimes there is a shift continually round.

12. And if a fire were to start immediately after examination on Sunday, when no one was in the mine, do you think a serious conflagration could take place?—I do not think so.

13. Do you apprehend any danger of fire burning through at the brick wall as it is fixed at the present time?—No, I do not think there is any fear of it burning out.

14. How do you think the purity of the ventilating current compares with that of previous years?—I think it is much better.

15. Do you know of any large and dangerous accumulation of gas in the mine?—No.

16. What about the gas in Duncan's level?—I do not consider that a large and dangerous accumulation. There was a caution-board there stating "No road through this way," but it got knocked down. It was a piece of 4 by 2, with the words written in chalk.

17. Was it difficult to get into Duncan's level?—Yes; it was fallen from the mouth right to the face.

18. You remember the return airway, I suppose, a little over twelve months ago?—Yes.

19. Do you think the condition of the return airway has improved since that time?—Yes; I have seen the return airway completely blocked. It was a common thing to go up with dynamite in your hand and blow a hole in it.

20. *The Chairman.*] How long ago was that?—About two years.

21. So that there was no exit for the men except through the main haulage-road?—That is so. No person could travel on the return airway, and I have seen it when you could not put your hand through.

22. For how many years did that state of things continue?—I think that was the third one that was made. There were two airways lost there. The tube was the only thing that remedied it, and I think Mr. Broome was the cause of the tube being put in.

23. Were you in John Brown's place before he left work on Monday week?—Yes.

24. Were you in afterwards?—No.

25. Was the air very bad in that place?—It was a little bit flat. When I got up to the face no one was there. There were two safety-lamps burning by themselves. I met Brown going into the bord. I asked him what was the matter, and he said his place was full of gas. I said, "You may come with me and show me." I took him right up to the face, and I put the lamps right up to the roof, and asked what gas was there. I drew the wick down to test it, and asked him how much was there. He said to me it was considerably better than when he came up that morning. I said, "It is funny if it cleared away that rapidly." I asked him if he was going to work—there was no dangerous quantity of gas—and he said he was going home.

26. *Mr. Broome.*] Was it black damp or gas?—It was a little mixed.

27. Could he have worked in it without the safety-lamps?—Yes; he was better with the safety-lamp, as there was a little gas in it.

28. Do you think he could have worked in the place without any serious difficulty?—I think so. The only drawback was that his trucker was away home. I did not see his trucker.

29. Do you remember the day when the gas was lit in the north level?—Yes.

30. Were you through there before?—I was there accompanied by yourself that day.

31. Was there any quantity of gas that day?—There did not seem to be any accumulation. The was a little given off in the bottom level.

32. Do you know what state the safety-lamps were in when recovered in that part of the mine?—All that I saw seemed to be all right enough.

33. Were any broken?—No, not to my knowledge.

34. How many lamps were left in?—Two, I think.

35. When did the men return to work there?—Next day, I think.

36. Has there been any accumulation of gas there since?—Not since.

37. Has there been any gas there since?—There is a little—not much.

38. Not sufficient to stop the men working?—No. The main feature was the stenton, which was pretty well through.

39. They were put on with safety-lamps?—Yes; all were working with safety-lamps.

40. Have you ever found any defective lamps given out?—I cannot say I have, except Penman's and Dunn's.

41. You have heard what was said about Statham's, which I opened myself?—Yes; those are the only ones I have seen.

42. Did you hear Statham's evidence?—Yes.

43. How long is it since the air-pipes were put in in Statham's heading?—About the 15th February, I think.

44. Was there any dangerous accumulation of gas in that place when he left that day? Did you visit his place afterwards?—Yes; there was a little bit of gas in the heading, but not the quantity he said.

45. You did not think it was dangerous?—It was pretty well mixed. It was not sharp.

46. Have you seen any dangerous accumulation of gas there since?—Not since the pipes have been in. I think Statham said there were no pipes in when he found gas.

47. About the state of the trucking-road, was it more serious the day the truckers left than it has previously been?—No, I do not think so.

48. Was the road in a fair condition?—There was not much wrong with it that day.

49. How deep was the water?—About 2 in. or 2½ in. I told them, the scrutineers, to examine it for themselues. As far as the road in that north level is concerned, I think it is in a better state than it ever was before.

50. In case of an outbreak of fire, do you think the men could safely travel the return airway?—In my opinion, I think they could safe enough; but some of the men may not know their way. It would be easy enough for us to take the men and show them, and I am prepared to take them in at any time if they desire to see it.

51. You think the safety of the mine at the present time compares favourably with its state twelve months ago?—I do.

52. *Mr. Donaldson.*] How often do you travel this return airway to see that all is right?—Every other day.

53. When did you first discover that the notice-board was knocked down at the end of the level?—On Saturday last.

54. When did you travel the return airway previous to that time?—I think, on Wednesday.
55. Did you take any notice whether the board was knocked down then?—No.
56. Do you remember when the south side was closed off?—Yes.
57. What state was the return airway in then?—Very bad.
58. Could a man have gone through it?—Sometimes he could, and sometimes he could not.
59. About that particular time do you think he could?—No.
60. At that time have you any knowledge of the return airway being completely blocked when the south side was closed off?—No, I do not think so.
61. Were men working in the mine?—Yes.
62. You were in charge?—No, I was not in charge.
63. You were not an underground official at the time?—I was a deputy.
64. Did you report the state of the airway?—Yes; that was nothing new to any person. I am going back for about eighteen months.
65. Has it been reported blocked off during the last twelve months?—Not to my knowledge. It has always been in an efficient state since the tubing was put in, and I do not know that date. I think it was shortly after Mr. Broome came—it might be eight or nine months ago.
66. *The Chairman.*] You say it was frequently reported to be blocked before the tubing was put in?—Yes.
67. But that since the tubing was put in it has not been blocked?—Yes.
68. And the tubing has been put in how long?—About ten or eleven months.
69. *Mr. Donaldson.*] Have the truckers ever requested you to repair the trucking-road?—They have spoken to me once or twice about it, and I always made it my duty to attend to it.
70. Have you ever refused to do so?—No.
71. You are sure of that?—Perfectly sure.
72. You say you found gas in Statham's place when you were there?—Yes.
73. You knew a man was working there where there was gas existing?—As soon as I knew it I took him out of it. No man is allowed to stay in his place where there is an accumulation of gas. I have several times taken them out and fixed them up in other places rather than send them home. I brought Statham out and put him into a bord.
74. When in Dunn's place did you find gas?—There was a small mixture there.
75. Did you take any precaution to have the gas taken out?—Yes; we had a hose.
76. And when you saw the hose was not clearing it did you do anything else?—It must have been clearing it, because there was an accumulation of gas before.
77. Did you visit Dunn's place on the day of the explosion?—Yes, before and after. There was no accumulation of gas, but there was a small percentage mixed with the air.
78. Did you take any means to have it cleared out?—The ventilation was carrying away any that was given off.
79. And you adopted no means to take it out?—I said we adopted the means that we did.
80. Do you know of the explosion that took place on the afternoon shift?—I heard of it. It was a small thing.
81. Did you know of gas existing in that place before?—No. It was always the bottom level, anything that was there. There was seldom anything in the top level, unless something was wrong with the air-pipe.
82. Are there facilities offered if anything goes wrong with the air-pipes: are they liable to be broken?—You are just as liable to break the air-pipe as the airway is to be closed. We have no guarantee that they will stand without being broken.
83. What length of hose is attached to this air-pipe?—One length, and sometimes two.
84. Where is the main cock in these air-pipes?—At the bottom heading.
85. Has anybody going past the right of access to it?—No one has the right.
86. Has it been so that any one can go into the place?—Yes.
87. In the north side, where your pipes are laid, they are right across the front of your bottom heading?—Yes.
88. Suppose there was a runaway at the heading, would it affect the air-pipes?—I do not think so.
89. *Mr. Proud.*] Do you think there is any firedamp in the goaf?—I think the visit on Friday and Saturday substantiated these things. I took you to every fall and stopping and every hole and corner of the mine, and there was neither gas nor damp that could be found.
90. *Mr. Broome.*] Is there any danger of the return airways blocking since the tubes have been put in?—I do not think so.

EDWIN RIDLEY GREEN examined.

1. *The Chairman.*] You are Inspector of Mines for the Southern District?—Yes.
2. How long have you been in charge?—Since the 1st November, 1899.
3. When did you first inspect the Kaitangata mines?—On that date.
4. What did you find there with regard to the return airway?—I found that the airway generally was not what it should be as a travelling-way, being a second outlet. That part of the airway in the rise or drift where the tube now is was in a very dilapidated condition. It was fallen from a height, and the timbers which had been put in had been knocked out. I was given to understand that the timber had been renewed again and again, and was knocked out by successive falls.
5. Was your attention called to any other part of the mine—to any other deficiency?—To the south workings, which were rather warm.
6. Was that in consequence of the return airway being blocked?—Partly; and in consequence of the pillars and roof having been robbed in the high places.

7. What were the haulage-roads like?—They were all in fair condition.

8. The ventilation of the mine generally was what?—There was plenty of air; but in the south section it was very warm. There was more air than is required by the Act.

9. Why was it warm?—It travelled round all the workings, and escaped into the return from the south side.

10. What about the fires?—And the incipient fires warmed up the atmosphere.

11. Was the brick wall built?—No; there was a wooden stopping there with a trap-door in it.

12. Did you make any requests?—Yes.

13. Where they complied with?—Not fully.

14. In what respect?—I will hand you the written particulars in Dunedin.

15. Was any request made that was neglected?—The return airway was not successfully dealt with.

16. Was it done afterwards?—Yes; after the tube went in.

17. Is it now in a satisfactory condition?—Yes, and safe; but it may be considered too steep and small for fair travelling.

18. Have you from time to time made requests?—Yes.

19. And have they all been complied with?—They have, substantially, during the last twelve months.

20. Have you been present during this inquiry?—Yes.

21. You have heard the statements as to gas?—Yes.

22. What have you to say as to that?—They come as a revelation to me—most of them.

23. Do you think it possible that these statements are correct?—I think it is possible that gas has existed as stated to a certain extent; but not to such an extent as has been stated. There were conditions provided for the removal of gas in the various places.

24. We have had no evidence offered at all as to the Castle Hill Mine: in your opinion, is that in a satisfactory condition?—Yes, exceptionally so.

25. Is the Kaitangata Mine much inferior to Castle Hill in point of safety?—It is inferior in this respect: that it is a much older mine than Castle Hill. The airways are very much longer in Kaitangata. It has been extensively worked. Large quantities of coal have been taken out, the effect of which has been to cause pressure, not only roof pressure, but side pressure, to take the space up on all the open ways, causing a contraction in the areas of the older travelling-ways and airways, and rendering them more difficult to maintain.

26. Is there any special danger to life in the mine?—No particular danger. There are risks attached to working the mine.

27. There are risks in all mines; but are there greater risks in this mine—say, with regard to explosion?—Yes, if precautions are not taken.

28. Is there any special risk?—No, I am not aware of any.

29. Do you apprehend any danger from that fire behind the brick wall?—Not if kept under control and attended to.

30. Or from any other fires in the mine?—No; nothing more than has been usual in the mine for many years past.

31. In short, do you think the owners of the mine have done their duty?—I do. I think the present management are doing all they can, and I would like to add that the officials are doing exceedingly good work in the mine.

32. Do you think there is any objection to using naked lights alongside safety-lamps?—I agree with what Mr. Broome has said to a certain extent—that, the coal being a thick coal in places, there is a certain amount of risk attached to the absolute use of safeties. In places (bords) where the coal is bleeding firedamp it presents another source of danger to using open lights. There is more danger in not using open lights, because there are occasional falls from the roof and sides. When they are advancing into new coal the gas bleeds a little.

33. *Mr. Proud.*] How frequently do you visit the Kaitangata mines?—I have made about ten inspections during the last twelve months—that is to say, of ten separate days in four different months. There were about four occasions last year.

34. Do you think that sufficient time to enable you to go through all the workings of the mine?—I do it, nevertheless.

35. *The Chairman.*] How many mines have you under your charge?—One hundred and fifty coal-mines, I think.

36. And about how many gold-mines?—About twenty quartz-mines, about a hundred working dredges, and a hundred building dredges, also hydraulic and sluicing claims in addition.

37. *Mr. Proud.*] The inspection of dredges must have added considerably to your duties?—Yes, very considerably.

38. *The Chairman.*] Have you any assistance?—I have a cadet in the office, but no outside assistance.

39. *Mr. Donaldson.*] Have you ever found 27,000 ft. of air travelling at the furnace?—I did not measure the furnace at that time, but I found 27,000 ft. at the intake at the bottom of the incline on one occasion.

40. In your opinion, if the Kaitangata Mine had been systematically managed, do you think it would have been in the same condition as it is to-day?—I do not think so.

41. *The Chairman.*] Do you think there has been bad management?—I think it might have been worked in a different manner, which would have made it better for all concerned.

42. *Mr. Donaldson.*] It is not part of your duty to dictate how a man should drive a heading?—I cannot do that on private property.

43. In your opinion, have the headings been wrought back to the fault in sections, or have they been driven up 40 ft. or 50 ft., and the coal dropped, and the pillars taken out, and so on, say, in any part of the north side?—Yes, driven to the fault.

44. Have the other parts of the mine been wrought in the same way?—I have not seen so many other parts of the mine; but I should say, as a general thing, No.

WILLIAM DUNCAN, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years' experience have you had at mining?—About thirty-seven or thirty-eight.

2. How long have you been at the Kaitangata works?—Twenty years past last July, but not continuously.

3. You are president of the Employés' Benefit Society?—Yes.

4. Are you working at present?—I am not.

5. Have you been discharged from the employ of the company?—Yes.

6. Have you got your written dismissal?—I believe I have. There is one I had previous too. "20th February, 1901.—Mr. William Duncan, Chairman Picnic Committee.—Dear Sir,—Referring to your conversation of yesterday *re* date of the picnic, and your letter of even date, I beg to call attention to the notice I have posted at the mine-mouth.—Yours faithfully, G. H. BROOME."

7. *The Chairman.*] What was the notice at the mine-mouth?—To the effect that we had not consulted the company, according to their idea, and that if we held the picnic on the date I had mentioned to Mr. Broome he would hold the committee responsible. On the 23rd February I received the following: "W. Duncan, senior miner, Chairman Picnic Committee.—Dear Sir,—As you have deemed it fit to disregard instructions and to absent yourself from work without leave, I have to inform you that your services are henceforth dispensed with.—Yours faithfully, G. H. BROOME, Mine-manager.

8. *Mr. Donaldson.*] Has it been customary for the employés to have an annual picnic for some years past?—Yes, for about sixteen years past.

9. Has it been customary for the company to give a donation to the picnic funds?—It was proposed by the company through Mr. Watson, I believe.

10. On this occasion was Mr. Watson approached?—Yes; the secretary was instructed to approach him with regard to it.

11. Did you receive any reply?—The secretary received a reply stating that, owing to the great outlay and expense to which the company had been subjected, he did not see his way to contribute anything towards the picnic on that occasion.

12. Did you then inform Mr. Broome that the picnic was going to take place?—Not then, because we intended to hold the picnic on the 16th—that is, a week previous to the time it was held; but in consequence of Mr. Watson refusing to give us anything it was postponed to a later date.

13. When did you inform Mr. Broome that you were going to hold the picnic?—On the 18th—the Monday.

14. Did you receive any correspondence from Mr. Broome subsequent to that time?—Not by letter. Mr. Broome waited for me at the mine-mouth on the Tuesday afternoon. He told me he had been invited to the picnic, but that the day would not suit the company. I inquired the reason, and said, "I suppose your reason is that you have a great demand for coal"; and he said that was so, and he would prefer that we deferred it for another week. I said, "It is rather awkward. Most of the committee are down at work, and I shall not be able to see any of them." Personally, I was willing to defer it, and did not care whether the picnic went on or not. I said I would see some of the committee about it. I saw a few of them, and found that they were not in favour of altering the date.

15. What time would expire from the time you first intimated to Mr. Watson that you intended to hold the picnic and the date when the notice was put up at the works?—Eight or ten days.

16. So that the company knew a fortnight before that the employés contemplated holding the picnic?—Yes.

17. On the day of your dismissal did you have any conversation with Mr. Broome?—On the Saturday morning I went in to get my tokens, and was going out of the shed when he said, "Mr. Duncan, you need not go down this morning; I have a letter for you in the office." I said, "All right." He said, "Just wait a minute or two," and then he gave me the note.

18. Have you had any conversation with Mr. Broome since?—Yes.

19. Did he give you to understand that he would re-engage you?—No. In fact, I did not ask him.

20. What part of the mine were you working in, say, the last cavil, before the 25th January?—The north level. I had wrought before that in No. 3 dip.

21. How was this level ventilated in the north workings?—By compressed air.

22. Did you work with naked lights or with safeties?—Naked lights.

23. Did you ever work with safeties in this level?—I do not think so.

24. Do you remember the day when the truckers came home?—Yes.

25. You were working in the north side then?—Yes; up the self-actor.

26. What condition was the trucking-road in when the truckers came home, and for some time previous?—It was pretty bad when the truckers came home, but not so bad, I think, on the day they left as on the day previous.

27. The roads were in bad condition?—Yes; and covered with water in places.

28. Did you know that truckers had been complaining about the state of the roads previous to them going home?—I was led to believe they had.

29. Had you heard them yourself complaining about the state of the roads?—Yes, frequently.
30. Had you a son trucking in this road?—Yes; he was trucking for me.
31. Was he discharged for going home?—Yes; he was one of them.
32. How long was he idle?—About five or six weeks.
33. Do you know whether he asked Mr. Broome to be re-engaged?—Yes; I do know that he asked to be allowed to go to his work again.
34. Do you know what took place when he asked to be re-engaged?—Yes. I saw Mr. Broome previous to what took place on that date—that is to say, I was out of work, and drew a blank at the cavil. I went up to see when I could start again, and saw Mr. Broome. He said I was to send my boy up to him. The boy went up, and when he came down he told me that Mr. Broome wanted me up too. Mr. Broome took a paper up and wished the boy to sign it. He handed the paper over to me, and I said I thought it was hardly fair to try the young fellows individually like that. The paper read to this effect: "I am sorry I left my work of trucking in the north level, and if you will overlook my foolish action and allow me to go to work I will not be guilty of such a foolish thing again," or words to that effect.
35. *The Chairman.*] This is what Mr. Broome suggested should be signed by the truckers?—Yes. [Letter put in by Mr. Donaldson.]
The Chairman: Mr. Broome suggests that Duncan should write to him to this effect: "The committee, on further inquiry, have concluded that the truckers erred in leaving their work in such a summary manner, and they assure you that if their foolish action on the present occasion is overlooked the committee will make it their business to discourage such high-handed conduct in future, and will do their utmost to prevent any repetition of the same. If you are able to reply promptly to this it may be possible to let the truckers out to work this afternoon."
36. *Mr. Donaldson.*] You saw the road previous to this: did you consider it was in good order?—No, I did not.
37. *Mr. Broome.*] You said, in answer to Mr. Donaldson, that the company knew the employés intended to hold the picnic a fortnight before the notice was posted at the mine-mouth?—Yes, as far as I knew the date.
38. I think they knew of the intention to hold it, but not the date?—The date would have been left with Mr. Watson if he had given it any attention.
39. But he knew nothing about the date?—You were the first to know it on the Monday morning.
40. The first notice the company had was on the Monday morning?—The secretary will be able to tell you about that better than I can.
41. So far as you know, the first intimation the company received was on the Monday, when I received an invitation to the picnic from you?—Yes, as far as I know.
42. That was simply in the shape of an invitation to me and my wife and family?—Yes; I wrote to you.
43. Is this the letter: "Kaitangata, 16th February, 1901.—To Mr. G. H. Broome, Manager.—Sir,—I have the honour to inform you that we, the employés of the Kaitangata Railway and Coal Company, have decided to hold our annual picnic on Friday next, the 22nd instant, on the recreation-ground, Kaitangata. Trusting that you and Mrs. Broome and family will favour us with your presence on that occasion, I remain, Sir, yours most obediently, WILLIAM DUNCAN, Chairman of Picnic Committee"?—Yes, that is it.
44. That is dated the 16th, and it reached me on the afternoon of the 18th; the picnic was on the 22nd: can you say that the company was consulted in any way as to the date?—I think I have already stated that Mr. Watson was written to.
45. Having decided to hold the picnic on a certain date, did you ask Mr. Watson or the management if such a date would be suitable?—No, I do not think we did.
46. Was it not customary on former occasions to consult the management about the date?—Yes, I believe it was, Mr. Shore, the late manager, having it in charge. It has always been usual for the employés and management to work together and to fix the date.
47. On this occasion it was fixed solely by your committee?—I believe it was.
48. No reasonable time was lost by the company in objecting to the date?—I think there was. I think the company might have let us know sooner, and the friction might have been avoided then. If you had informed me on the Monday instead of the Tuesday night there might have been a difference. The letter ought to have reached the management on the Monday morning.
49. The management raised no objection to your holding the picnic?—No. Supposing we had altered it for a week, I believe we could have held it.
50. Did not the notice suggest holding it the following day?—I do not think it did; but I am not quite sure.
51. *The Chairman.*] Would you say that this is a copy of the notice that was posted: "20th February, 1901.—Important Notice.—It has been unofficially intimated to the management that it is the intention of the employés to take a holiday on Friday this week for the purpose of holding a picnic. I have to intimate that this is the first occasion on which the employés have sought to hold a picnic without consulting their employers, and, as it is inconvenient in the interests of the company's business to lay the mine idle on Friday, the Picnic Committee will be held responsible for any dereliction of duty. The management have no objection to Saturday being made a holiday, but at the same time they object to any such fixtures being made without mutual arrangement.—GEO. H. BROOME, Manager." ?—Yes, I believe that is it.
52. *Mr. Broome.*] You stated that on the day the truckers left their work the rails were covered with water in places?—I said that the day previous to that the rails were covered with water; and I am not sure that the rails were not covered on that day also.

53. You are also satisfied that the roads were a little better when they left?—Yes.
54. For what length would the rails be covered with water?—20 ft. or 30 ft.
55. Where would that be?—Just about the fault.
56. You are not sure that the rails were covered with water the day the truckers left?—I am not sure.
57. What depth would it be in the greatest part between the sleepers?—It might be 6 in., or 4 in. in some places
58. Are you satisfied there would be 3 in.?—Yes.
59. Do you think the truckers were right in striking without first seeing some of the company's officials, or calling at the office and seeing me?—I do not think they were justified altogether in doing that.
60. Had any improvements been made on the road before this time?—Very little, I think.
61. Then, how do you account for the road being better on the day the truckers left work?—In this way: that some of the stuff might have got in and dammed the water back on the previous day.
62. So that something must have been done to relieve the water on the road?—Yes, I dare say there might have been a little done.
63. Do you think something must have been done?—I did not see any one doing anything myself.
64. The fact that the road was better would indicate that something had been done?—Yes; a little cleaning.
65. You say the north-heading ventilation, where you worked, was by compressed air?—Yes, part of it.
66. When you were working there with naked lights?—No, I do not think it was.
67. Your place was not ventilated by compressed air?—No.
68. Was the heading ventilated with compressed air in any part where you were working?—Not so far as I can remember.
69. *Mr. Donaldson.*] Were the boards in the centre of the road?—The planking was placed in the centre—1 in. boards.
70. Mr. Broome has been talking about the company arranging the picnic in Mr. Shore's time: do you think that any of the committee would have dared to object to anything the management suggested on previous occasions?—No, certainly not. It was left entirely in the hands of the company and Mr. Shore.
71. So that the company practically ran the show?—Yes, did everything in their own way.
72. Has the picnic ever been held on a Saturday, to your knowledge?—No, I do not think so.
73. *Mr. Broome.*] Do you know why it was not held on a Saturday?—I think it was on account of the railway officials.
74. And you had to hold it when you could get a train?—Yes, I believe that was the reason.

CHARLES PENMAN, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years' experience have you had as a coal-miner?—Thirty-four.
2. How long have you wrought about the Kaitangata works?—I have been here seventeen years come 11th May, but I was two years away on the West Coast at Denniston. That would be fifteen years here.
3. Do you remember going to work on the 14th February?—Yes; that was the third or fourth day of the present cavil.
4. What took place at the cabin?—I got two lamps to take to my place, and was told that there was a little gas in it. I went to the head of the self-actor.
5. What did you do there?—It is customary for a man to have a bit of a smoke there, and I met the two brothers Duncan. We all sat having a smoke, and they said there was a little gas in their place. I said to the boys that for curiosity I would examine the two lamps that I had. We all did that, and out of the six lamps we found that four blew out. They were all locked too.
6. Are you supposed to blow these lamps out?—Not at all.
7. They are supposed to be perfectly tight?—Yes.
8. You say you blew out four out of the six?—Yes.
9. Did you work that day?—No.
10. Why?—I took the safety-lamps and did a little work myself, and directly I went into the flat sheet the gas went into my light. I said, "You are there, are you," so I laid the lamp down in the flat sheet.
11. Did the gas explode in the lamp?—Yes. I laid it down in the flat sheet for ten seconds or so, and then I lifted it up from the bottom and said, "You are there again, are you," and turned out of the road.
12. How far would the flat sheet be from the face?—Say, 20 ft.
13. Do you know if there was any gas in any other of these places?—Yes; the level inside of mine would be nearly 100 ft. ahead of me, and it was full from that end.
14. Do you know of any other place where gas was lying?—There was a heading where the two Crow brothers were, and I have heard that it was something like my own. Gas was bound to be there.
15. You went home?—I did.
16. Did you meet any one on the way?—Yes; I came out after examining it myself to the head of the bray. These men were still there, and asked me what like it was. I said it was full, and I was going home. Mr. McAllister came up and asked me what they were sitting there for. I said there was a little gas there, and I was not going to work in that place. He said, "What is the

matter with your light?" I said, "Examine it for yourself." There were four of them out at that time, and he took them up and saw that there was no light in them. He said, "That is funny. We pay men for looking after the lamps, and yet we have to examine them after they come down." He unlocked the lamps, and lit them himself, and blew them out again, and I said he would then be satisfied that the lamps were not safe. He took out the washers and screwed them up, and I think there were two that he made tighter, but the others were defective. He went in to see what the place was like, and came out and said, "You chaps had better go home, as I do not think you can work in there to-day." He said, "If you wait until 10 o'clock, the air-pipes have been broken, and they will be on again then. We will blow the gas out then, and you can go on working." I said, "You will not get me to work there with men who were working with naked lights." So I went home.

17. What condition was the trucking-road in at the time you were on the north side?—The road was not very bad then. That was after the truckers had got the "sack."

18. Had they fixed it then?—I do not know; but, according to complaints I heard, they must have done so.

19. Have you felt uneasy when working in the Kaitangata Mine of late?—Yes, very uneasy too.

20. Why?—On account of the place where the fire is at the brick wall.

21. Have you felt the brickwork at night?—Yes; and also in the morning.

22. Was it hot?—Yes; on the left-hand side going in.

23. Was there a fire-smell about it?—Yes. I have seen smoke coming out. When you went into the drive you could see it besides smell it.

24. Do you know if they have done much work there lately?—They never did much work, so far as I saw, but from reports I have heard they have been working there every night of late.

25. Do you know the return airway, and do you think you could travel it?—I think I could if I had a light; but I was never through it, and I do not think there are ten piecework-men in the mine who have been through it.

26. So that you could not say whether it is in proper condition or not?—I have been in each end of it, but never right through it. Both of the ends seemed right enough to travel in, but I was never in the centre.

27. By the by, you were discharged some little time ago?—Yes.

28. Why?—Because I was treasurer of the Picnic Committee of the men's Benefit Society.

29. You were a member of the committee of the Benefit Society?—Yes.

30. Has it been customary for the miners to have an annual picnic?—Yes, ever since I came to the company.

31. Has it been the custom for the last fourteen or fifteen years?—Yes, to my own knowledge.

32. Do you know whether the management was approached?—Yes, three weeks previous to the picnic.

33. Was there any correspondence between you and Mr. Watson about it?—Yes; the secretary, Mr. Watson, was asked for the usual donation—for whatever they were inclined to give—and we got a reply that they could not give anything owing to the extra expenditure they had been put to.

34. What did the committee do then?—There was a motion passed that the picnic be held up in the Domain, and that we notify Mr. Watson and the directors to attend it.

35. Was Mr. Broome informed that this picnic was going to take place?—The president was appointed to interview Mr. Broome, and he told him the picnic was going to take place, and he invited him and Mrs. Broome to it.

36. Do you know if they were invited?—Mr. Broome admitted to me himself that he had been invited.

37. Did Mr. Broome place a notice up about the works subsequent to receiving the invitation?—Yes, alongside the programme, not quite two days before the picnic.

38. Have you any idea how this notice read?—I cannot remember the words.

39. *The Chairman.*] What was the effect of it—that it was not to be held?—Yes; and that if the picnic was held the committee would be held responsible for the mine being idle on that date.

40. *Mr. Donaldson.*] How many members of the committee are there?—Twenty.

41. From whom did the committee take its instructions?—From the employés. It is customary to hold an annual meeting, when a committee is appointed to carry out arrangements for the picnic.

42. And the committee received instructions from the employés?—Yes.

43. Was the picnic held on the day appointed?—Yes, on Friday.

44. Did you go to work the next day?—Yes, on Saturday.

45. Did you work?—I did not get leave.

46. Why?—I went down to the cabin as usual, and was told I had to go back and see Mr. Broome; but I saw Mr. Broome before I went down the mine. I came up and sat with Barclay and Thomson. Mr. Broome came up and looked down at us a bit, and we looked up at him. He then came down and gave me a paper in an envelope. I said, "What is this?" He said, "That is your dismissal; you are no longer required." [Dismissal produced.] "22nd February, 1901.—As you have deemed it fit to disregard instructions, and absent yourself from your work without leave, I have to inform you that your services henceforth are dispensed with.—To Charles Penman, miner, Treasurer Picnic Committee.—GEORGE BROOME, Mining Manager."

47. *Mr. Donaldson.*] Did any conversation take place between yourself and Mr. Broome with regard to your dismissal?—Yes. I asked him, "What is it for that you send me home?" He said, "You will find it all inside." I said, "I cannot find it inside here what I am dismissed for." He said, "It is over in the place there." I said, "I take my instructions from the cabin down below."

48. Have you had any conversation with Mr. Broome subsequent to that time?—I just asked him that day if he had any reasons for dismissing me, as regards my character or work, and he said, "None whatever."

49. Did he tell you that subsequently to that time you had left your employment?—He said we had left it.

50. *Mr. Broome.*] Have you ever read the special rules?—Yes.

51. Do you know them fairly well?—I cannot say I do remember them all.

52. You say you have seen smoke coming down from the brick wall in the main drive?—Yes.

53. Have you ever seen smoke coming down from the smithy?—Yes.

54. Do you think the smoke might be from that?—No; it was before the smithy was there that I have seen it.

55. You have been appointed examiner for the mine, and have examined the mine and return airway?—Yes.

56. Did you travel the return airway on that occasion, or on any occasion when you examined the mine?—Yes; up by the flues.

57. Why did you not travel all through it when travelling the mine?—Because I could not get through.

58. When was that?—The very first time I made the examination.

59. When was it?—Nearly twelve months ago.

60. Have you made any inspection since?—Yes.

61. Why did you not travel the return airway since?—I have travelled it since; but I could not the first time, because I went over the knee in water.

62. At any time have you travelled it?—Yes.

63. *The Chairman.*] All the way?—Yes, pretty well, but not exactly every foot of the ground. I have travelled both the ends, but not quite all the centre.

64. *Mr. Broome.*] Why did you not travel it to the centre?—I did not think it was necessary.

65. You felt no anxiety as to your safety—as to your second outlet in case of danger?—When we saw the air-current there was plenty of air travelling. I did not feel much anxiety. You could get round the part where I did not go through.

66. You did not feel any anxiety, or you would have examined it?—Not at that particular place.

67. That is not the question. You did not feel any anxiety about the brick wall or any other part breaking out?—There has always been anxiety about the brick wall.

68. Why did you not satisfy yourself, then, as to a second outlet if you had no anxiety about it?—There is only one return airway, and only one way out of there. There might be a chain that I did not travel.

69. *The Chairman.*] Is that the only anxiety you have—about the brick wall?—Yes, because the men would not be able to get out if anything happened.

70. Did it not occur to you that if anything happened to the brick wall the men would have to trust to the return airway?—Yes.

71. And did it not occur to you that there might be difficulty in travelling it?—There is difficulty, certainly.

72. I mean difficulty that would present itself to a reasonably cool man?—There are not ten miners getting coal that know about this return airway.

73. But they could be taken all through it in half a day?—Yes.

74. And if they were taken through it would that not remove all anxiety?—No.

75. Why?—Because it would depend upon whether the fire would break out in the brick wall. If they were up certain places and had to return they would be blocked in.

76. How far from the mine-entrance is the first communication to the return airway—the crosscut to the return airway?—It would be about 1,600 ft., I should say.

77. How far is it to the brick wall?—That is to the brick wall.

78. Then, you say that the return airway comes back to the main drive 1,600 ft.?—The return airway comes to the shaft. The men can travel along the return airway to the bottom of the upcast shaft, and then back to the main haulage-road, 1,100 ft. from the entrance to the mine—to the cabin—which is a distance of 400 ft. to the cabin.

79. That would be the distance from the outward side of the brick wall?—About 500 ft. on the outward side of the brick wall.

80. Which would place them in comparative safety?—Yes; but it would be a difficult road to travel, and they could never do it if they had never travelled it before.

81. Do you think the men would travel it any more than you did when you were actually appointed to do it?—I know exactly the line of workings, although I have not seen it.

82. *The Chairman.*] Would there be any difficulty in the deputy gathering the men and taking them out that way?—None.

83. Do you report periodically anything to the company that you find wrong?—Yes.

84. Did you ever mention this: that the return airway was insufficient?—On one occasion I did.

85. Is it in the book?—Yes; it was the first report I wrote in the book.

86. How long was that?—About twelve months ago.

87. Was anything done?—That part was shut off.

88. The present return airway is different, then, to that which existed two years ago?—Yes.

89. What does the difference consist of?—The air two years ago was travelling round where all this heat and fire was. That is now shut off, and the airway is in a different direction.

90. Is it better or worse now?—I believe the airway is better.

91. And what about the travelling-road in case of emergency?—I believe it is better than it was.

92. Have you ever reported while you were check inspector that the mine did not possess two outlets for the men?—No.

93. Did you ever make any representation as to the insufficiency of such outlet?—No.

94. Did the subject never attact your attention?—No.

95. I should think that one of the cardinal points of safety would be a second outlet?—There was never the same anxiety with regard to the safety of the mine as there is at the present time, because fire is so convenient to the men passing it, and seeing the danger is so great they take notice of it.

96. Is the danger more now than it was before the brick wall was erected?—Yes.

97. Why?—Two years ago there was no such thing as a fire seen. There was no brick wall, and no water played on it. Now it is a regular occurrence night after night to see a man coming with a bucket in his hand, and claying the place up all over to keep the thing in check, and so it causes the men to be more anxious.

98. I suppose there is more feeling now since the picnic?—I have no feeling whatever so far as I am concerned.

99. Who has been looking after the check inspecting for the last twelve months?—There have always been two appointed every quarter.

100. How is it you have not acted?—I have not been on for two or three quarters.

101. Did you make any inspection a year ago?—Yes.

102. And you reported nothing about these points?—There was not the same anxiety when I was inspecting.

103. Is that your signature to the report-book [book produced]?—Yes, and my writing.

104. This is your answer—this report in the book put in by the manager for 21st and 23rd July is in my handwriting: "We, the undersigned, having examined all the working-places and trucking-roads and airways in Kaitangata and Castle Hill, find them in good working-order, and the ventilation good in both mines; but we find a little gas in David Somerfield's heading in the north side, also a little gas in William Kyles's bord in the No. 2 dip. We also asked the management to clean the trucking-road in the Drum section, also the Drum level trucking-road.—CHARLES PENMAN, ADAM THOMSON, Inspectors"?—Yes.

105. The previous report is dated 18th May, 1900: "We, the undersigned, having examined all the working-places in Kaitangata and Castle Hill, and all the trucking-roads and all airways and old workings, and find them to be in good, perfect order, and perfectly free of gas. The only complaint was one of timber, but Mr. Broome promised to have all timbers taken in at night in future to prevent any delays or stoppages to trucks.—CHARLES PENMAN, ADAM THOMSON." And the last report is dated 10th February, 1901?—Yes.

106. *Mr. Broome.*] When the day-shift or afternoon-shift are in the mine, there are boys constantly on the road and other persons constantly passing and repassing the brick walls, are there not?—I do not think so.

107. I am speaking of when the mine is working and the men are in?—While going to their shift they do.

108. The boys are on the road constantly, are they not?—I do not think so.

109. How are the boxes clipped at the rope?—At each end.

110. And at No. 2 and No. 3?—No. 2 is outside and No. 3 is inside the brick wall.

111. In the case of anything burning out there, would not the boys at the end of the drive know of it immediately?—I believe they would.

112. And do you think it possible, in the short time that could elapse before attention would be drawn to that stopping, that any serious outbreak could occur?—Yes, I do; because the fire may accumulate at the present time on top of the boards and sand, and get to such an extent that two men standing inspecting it with a light would ignite those boards, when away it would go.

113. It would burn through 2 ft. or 3 ft. of sand and ignite those boards?—It might be set on fire below, and, being so dry, it would go off like powder from the heat above it.

114. You fear a light from the outside?—Yes.

115. You think there is a danger of the fire burning through 2 ft. or 3 ft. of sand and burning these boards?—You know that the sand will get into such a heated condition that it will dry up the boards, so that the least thing will set them away.

116. That would not be burning from the inside?—I have shown you how they might burn from the outside as well.

117. *The Chairman.*] Is there any water at night?—There are pipes through, but no one is there in charge of them.

118. *Mr. Broome.*] But there is water at night?—No.

119. *Mr. Green.*] You remember the occasion when you went to work on the 14th February?—I do.

120. Who passed you in the cabin?—Fred. Anderson.

121. Did he tell you the place was all right?—No; he said there was a little gas in my place.

122. I suppose that was the reason why he served out the safety-lamps to you?—Yes, I suppose it was.

123. Did you get to the face?—No, not that day.

124. When did you begin to feel anxiety about the brick stopping?—I felt very anxious about it for the last six months—very anxious indeed.

125. You say you were not appointed an examiner latterly?—No.

126. *The Chairman.*] How long is it since you worked in the mine?—The 21st of last month. I wrought the day before the picnic.

127. *Mr. Green.*] You know the examiners who were appointed at the last quarterly meeting?—Yes.

128. As a previous examiner, and having this anxiety about the brick stopping, did you draw the attention of those appointed to the danger which you supposed existed there?—No, I did not.

129. Why not?—It was not my business. That was theirs.

130. Did you not think of mentioning the matter to them as a fellow-workman?—No; I allowed them to judge for themselves.

131. Do you know if they reported about this stopping, or mentioned anything about it in their report?—Their report will be in the book.

132. Did they mention it?—I do not remember hearing the report read.

133. Was the same anxiety felt at the time the last examination was made?—I do not know.

134. Was the same anxiety felt by other men?—It was felt by all in the mine. I heard a few of them say so: "Kaitangata, 9th and 10th January, 1901.—We, the undersigned, have inspected the two mines, and have found them in this state: No. 1 heading, found places safe and air good; No. 3 heading, a little gas; No. 1 heading, north side, find the place warm, and not enough air; No. 3, north side, few sets of timber wanted; 6 ft. seam, little gas; no one working in place. All other places right. New seam, north side, no gas; place in good order. Kettledrum: Find five places with not enough air; all other places right; no gas. Roads wet in places; all air-courses in good order. Castle Hill: Find gas in north level. All other places in good working-order Good air travelling all over the mine. Air-courses in good order.—Nesbit Mackay and Joseph Harrison."

135. *Mr. Donaldson.*] Mr. Broome spoke of the boys at the end of the rope: what would be the distance from the end of the rope where the boys are to the working-faces?—Say, 900 ft.

136. Would the road be level or steep inclines to where the men are?—It would be up steep inclines.

137. Did you notice any water on this return airway when you made your inspection?—I did. We could not get into it. That was the reason we did not travel that back airway. Later the roof dropped down.

138. For some time past in the Kaitangata Mine, what do you think would have been the result if two workmen had made a true report on the mine?—They would have got what I have got now—the "bullet."

139. *Mr. Proud.*] Was it not risky on your part to smoke in the neighbourhood of gas?—Yes; I am very careful of gas, and never smoke.

140. But you said you had a smoke?—That was out away from the gas, at the self-actor.

141. Did you not consider that you were running a risk?—Not in having a smoke where I did—I am too well acquainted with gas.

142. If the fire were extinguished behind that brick wall, would you have any further cause for anxiety?—There would not be so much.

143. Did you receive instant dismissal in consequence of the picnic?—Yes.

144. *Mr. Lomas.*] What did you light your pipe with?—A naked light.

145. You had naked lights as well as your two safety-lamps?—Yes; so had all the rest of the men. He told us where to go with them.

Hutchinson Currie Longstaff, Coal-miner, examined.

1. *Mr. Broome.*] You are a practical coal-miner?—Yes, with an experience now of twenty years.

2. Are you the holder of a certificate?—Yes; a second-class certificate from Home.

3. Did you examine John Brown's place on Monday week?—Yes.

4. What was the state of the air in the place?—The air was a little dull through the canvas being down.

5. Did you re-examine it after Brown left?—Yes, after he left, and with Brown.

6. Do you think he could have worked in that place without any great inconvenience?—Certainly he could.

7. How long is it since pipes were put in in Statham's heading?—About six weeks, I should say.

8. Do you remember the day that Statham was working in the bord instead of the heading?—Yes.

9. What was the state of the heading that day?—Very good when I saw it. I found no gas in it.

10. How long would it be from the time of your examination until Statham went in there?—Five or six hours. It was all clear when I visited it.

11. Do you ever examine the safety-lamps before giving them out?—Yes, I examine all safety-lamps before giving them out.

12. Have you ever heard any complaints about lamps not being safe?—No man has ever complained to me about them not being safe, or given me one back, that I know of.

13. *Mr. Donaldson.*] You were deputy on the day-shift when Statham was in the bord?—No; on the afternoon-shift.

14. You were in Statham's place about 2 o'clock?—Between 2 and half-past.

15. Was there no gas then?—There was no gas where he was working.

16. Was there any gas in the heading?—The heading was clear, according to my report.

17. Is it customary to give out safety-lamps when there is no gas?—I do sometimes. I use my own discretion.

18. Did you give men in the afternoon-shift safety-lamps in Statham's place?—Yes.

19. You say you were in John Brown's place?—Twice; about half-past 8 in the morning.

20. And there was no gas then?—No; it did not show any gas on the lamp in his place, or in the place next to his.

21. Was there black damp?—No; if anything, it was rather dull, but did not show black damp, because my light was not put out, and I left two safety-lamps burning on the floor for about an hour, and they did not go out.

JOHN BROWN, Coal-miner, examined.

1. *Mr. Donaldson.*] How many years have you been employed at coal-mining?—Fourteen years altogether.

2. How long have you been employed at the Kaitangata works?—About eight years.

3. Do you remember last Monday week?—Yes.

4. Do you remember what took place on the morning when you went to work?—Yes.

5. What took place when you went to the cabin?—I asked if it was right, and Mr. Anderson said I had better take some safety-lamps with me.

6. What took place when you went to enter your working-place?—I could not get in, and I had to keep the light down to the ground.

7. How was the place ventilated—by brattice or stentons?—By stentons.

8. Was there any brattice at all in the place?—No.

9. *The Chairman.*] Had you to drive a stenton?—No; there was no place for it to go through on. We were driving in the solid.

10. *Mr. Donaldson.*] Did you work that day?—No.

11. You had to go home?—Yes.

12. *The Chairman.*] Who was in the place with you?—Matthew McLaren and a trucker, and James McLellan and his trucker.

13. *Mr. Donaldson.*] You had to go home because you were unable to work in your place?—Yes. When we got in first the gas was in about 60 ft. or 70 ft. from where our working-face was, and we could get gas there. As we got in further it came down more and was nearer the ground, and there was no air to blow it out.

14. Did you meet any one on your way home?—Yes; Mr. McAllister and Mr. Longstaff were there before we left.

15. Did any conversation take place between you?—They said that if we liked to wait for a bit they would get it fixed up, and they went away to get some screens.

16. Did you wait until they put up the screens?—No.

17. Do you remember where you were working in the month of October, 1899?—Yes; I was working on one of the coal-cutting machines in the Drum level.

18. How was the level ventilated?—With brattice and compressed air.

19. How far was the brattice from the face?—About 60 ft.

20. Do you think it would be 100 ft.?—I do not think so.

21. What means had you of ventilation apart from the brattice?—We had compressed air.

22. What condition was the level in: was it wet or dry?—Wet.

23. Was there much water on the level-road?—No, not outside where the machines had been working.

24. But there was water lying at the face?—Yes.

25. Would there be 2 in. or 3 in. of water?—Sometimes when working with the machines you would hole down, and when the men came in afterwards to clean the stuff up there might be 6 in. of water.

26. Do you think that level a place where dust was likely to accumulate?—No.

27. Who did you understand to have charge of that particular part of the section?—Mr. McCormack. He is the man I always recognised as my boss.

28. Were you working with safety-lamps or with naked lights?—Naked lights most of the time.

29. Did you ever work with safety-lamps on this level?—Yes; we always took one safety-lamp for our own safety.

30. Did you ever notice gas in this level?—Yes; that was a week previous to the 16th.

31. Did you notice gas there on the 16th?—Yes.

32. Had you occasion on the 16th to lengthen your air-piping?—Yes.

33. What part of the day would that be?—About dinner-time—half-past 11.

34. During the meal-hour was the compressed air blowing through the pipes?—No; the air was cut off.

35. And where was the main cock or stopping?—About 700 ft. away.

36. So that there was no air entering the place during the meal-hour except what came round the brattice?—No.

37. Immediately after dinner you started to lengthen the air-piping?—Yes.

38. Had you safety-lamps?—Yes.

39. Where were they hanging?—On the stoop side, a few feet ahead of us.

40. What length are the pipes?—Some 12 ft. and some 15 ft. I think these were 12 ft.

41. When you put on two or three lengths where would be the safety-lamp then?—Behind us.

42. So that there was no safety-lamp ahead of you?—So far as I know, there was not.

43. Was Mr. McCormack with you?—Yes.

44. Did he come into the level with a naked light?—Yes.

45. Was that the only naked light in the level?—That was the only one. Mr. McCormack came in and told me and my mate to blow our lights out, as one light would do.

46. Was one William Barclay working with you?—Yes; he was my mate.

47. And after you put your pipes on, what is the custom?—To blow through them.
48. Did you send Barclay to blow through these pipes?—Mr. McCormack did.
49. What did Mr. McCormack say?—He told him to blow for a few seconds. Barclay went down, and while he was away I sat down at the flat sheet, and Mr. McCormack was up at the pipes. Barclay turned on the air and closed it off again.
50. Were you close to Mr. McCormack or back on the road?—Back on the road.
51. What was your reason for that?—I did not want to be close when the pipes were being blown through.
52. Were you afraid of being burned?—Yes.
53. That is the reason why you went back to the road?—Yes.
54. What happened when the blow-through took place: was there an explosion?—Not the first time; but after a few seconds Barclay turned on the air a second time, and that brought the air down on Mr. McCormack's lamp, and there was an explosion. Barclay had to blow through the air-pipe to force any sediment out before putting the air-cock on.
55. *The Chairman.*] The air, on being blown through the pipe, would go on the face?—Yes.
56. Was the explosion a serious one?—It burned Mr. McCormack's arms, and singed his ears a bit.
57. *Mr. Donaldson.*] How far were you from Mr. McCormack when the explosion took place?—About 15 ft.
58. What did you do when the explosion took place?—Stretched myself out on the bottom of the floor.
59. Did you see any one go over the top of you when in that position—in a flat position?—Yes; Mr. McCormack.
60. *The Chairman.*] Was he blown over you?—No; he scrambled over me. He was burned mostly about the arms.
61. *Mr. Donaldson.*] During the last cavil did you ever do any work in the north side?—Yes; I was off and on there all the time.
62. Were you working on the north-level trucking-road the night previous to the truckers leaving their work?—Yes.
63. What condition was the trucking-road in then?—Pretty wet.
64. Do you think the road was in a fair condition to truck on?—I cannot say it was.
65. How much water would be lying on the road in parts?—3 in. or 4 in. in some places; and if you went off the sleepers I dare say you would go over the boot-tops. I went in over the boot-tops several times.
66. *Mr. Broome.*] Was it gas or damp that was in your place on Monday week?—I dare say it was both. I think it was a mixture of both. The air was fresher when we left.
67. Therefore it would not readily have exploded?—If you went in with a naked light it would explode quickly enough.
68. Were you working in that place on the Saturday previous?—Yes.
69. Was the air all right then?—It was dull. There never was very much air in it.
70. What was the dullness due to on Monday?—I have not the slightest idea.
71. Did you go to the face with McAllister that same day?—Yes.
72. And why did you not wait for the place to clear?—We had waited there until 10 o'clock, and the place was so strong that you could not live in it. If you had started to work in it it would have knocked you down. McLellan wanted to go home at once, and I asked him to pack a few trucks.
73. Have you not worked in places where the air was worse than that?—I have worked in worse places, but in a place where there were fires.
74. Have you worked much on coal in Kaitangata?—Yes.
75. Did you really leave that place because the air was too bad to work in, or because you had a grievance?—Because the air was too bad.
76. How long have you been on the coal?—About five weeks, I should think.
77. You were a shift-man before that?—I was.
78. Did you feel that you were being properly treated in being put on coal from the shift-work?—The shift-work was quite good enough, but I was quite satisfied to be shifted.
79. You felt that you had a grievance?—To a certain extent I did, for this reason: that it was only within a day or two of the cavil being drawn that I got any notice of it.
80. Having a grievance, I suppose you thought that by leaving the place because the air was dull it would be a good way of getting at the management?—I have not the slightest reason for that. I have no grievance.
81. You say you were not properly treated?—No, because, as I told you, I did not want to go into the cavil, and you never said whether you wanted me on shift-work or not. I never asked you to keep me on shift-work. It was the way in which it was done that I did not like.
82. Were you roadsman in the north side at the time these ten truckers left their work?—I was.
83. Was it not your duty to see that the road was kept in proper repair for the truckers?—It was part of it.
84. Then, why did you not do your duty?—It could not be done. The place was only about 4 in. wide, and if anything was done to it every trucker that came along just filled it up again.
85. Was the road in a worse state then than it had been previously?—It was always bad, and had water lying on it.
86. You do not know how it was on this particular day?—No; I was working in No. 4 dip.
87. You do not know whether the water was over the rails or not?—It was that night, but I cleaned out the gutter a bit and let the water go.

88. I suppose if the gutter were kept clean, as it is now, the road would be fairly good?—I do not know that it would.
89. Did you trouble yourself to keep it clean?—When I had time I did.
90. About what time in 1899 were you working in the Drum level?—In October.
91. Who was mine-manager at this time?—Mr. Shore, I think. It may have been some months before you took charge.
92. *Mr. McCormack.*] You worked in the Drum section for some time?—Yes.
93. The coal was pretty hard in some places, and dry?—Yes.
94. You repaired broken or displaced joints several times in the Drum heading and level?—Not on the level, but in the Drum heading.
95. Did you not put on a pair of flanges?—I was there to finish them up.
96. When a joint was broken what was the effect on the rope: would not all the small coal be blown away for a considerable distance?—Yes.
97. Sometimes you had a good pressure, and sometimes not, with the pipes?—Yes.
98. If you shut off the tap on the main air-current, what would be the result behind the tap: would the pressure increase?—Yes, certainly.
99. Would you get more pressure by reducing your pipes to a 1 in. delivery from a 3 in.?—Yes.
100. The joints that you repaired in the Drum heading were all 3 in.?—Yes.
101. You remember the instruction being given to William Barclay to wait until he got the signal?—Yes.
102. Was the signal given?—You gave him the signal once.
103. Did you say that to the Inspector in your report?—Yes, I fancy I did; I would not be certain.
104. The pipes were on the ground and reduced to 1 in., and what distance from the face?—I would not be certain.
105. You said the taps were on?—I think not. The tap was on after Barclay had blown through the first time.
106. They were 1 in. taps?—Yes.
107. But the pipes were on the ground?—Yes.
108. On turning on the air after half an hour with the main tap shut you would have a high pressure?—Yes.
109. The blower would be strong?—Yes.
110. In your statement to the Inspector you said there was no room for another pipe in the face?—I do not know that I did.
111. What length were the pipes?—12 ft. or 15 ft.
112. Do you smoke?—Yes.
113. Would you smoke where you had to use a safety-lamp?—No, I would not.
114. You say you think that Mr. Shore was manager at the time?—Yes.
115. Who was underviewer?—John Shore or Thomas Barclay; I do not know which.
116. Was Thomas Barclay in the place two days before that: was he there on the Friday?—I could not be certain.
117. Do you remember telling me anything in the presence of William Barclay?—I cannot say that I do.
118. Did you ask for brattice?—No.
119. And there was none put up?—No.
120. Who told you that I was in charge?—You told me yourself.
121. What did I tell you?—You told me that those fellows had nothing to do with me.
122. As far as the machines were concerned?—Yes.
123. You were only working at the machines?—That was all.
124. Were there other men working round about?—Yes.
125. On one or two occasions you were not paid, or was short, and you complained to me?—Yes, I believe I did.
126. Who booked your time?—I do not know.
127. Did I book it?—I could not be sure.
128. Did you tell the Inspector the truth as far as you knew it?—Yes, as far as I knew it.
129. *Mr. Green.*] Where were you working on the 11th February—last month?—I was working in the north side.
130. The day when the gas was in the place?—It is up in Macdougall's section.
131. Which bord?—It was a stenton off No. 6 bord.
132. Who passed you in the cabin that morning?—Fred. Anderson.
133. Who gave you the lamps?—Fred. Anderson.
134. Did you get to the face?—Yes.
135. Had it been examined?—Yes.
136. And chalked?—Yes.
137. Do you know by whom?—No.
138. The date was all right, proving that the examiner had been there that morning?—Yes.
139. Now, about the 16th October, 1899: you remember that date very well?—I do.
140. You know that it is eighteen months since?—Yes.
141. Did you take notes of what occurred that day?—I did not.
142. You are trusting to your memory?—Yes.
143. Do you remember having a conversation with me on the 1st November as to what occurred on that date?—Yes.
144. You made a statement to me which I noted down as you gave it to me?—Yes.

145. Would you be surprised to learn that your written statement of that date does not compare with your evidence of this morning?—The same things may not have been asked.

146. You say this morning that the safety-lamp hanging on the wall was behind where you were working?—Yes.

147. Do you remember telling me in November that the safety-lamp was ahead?—It was ahead of us when we started.

148. Do you remember telling me that there was little or no gas in the place?—No; I could not have said that, because if you kept the air off for a short space of time there was always a little gas.

149. Do you remember telling me that the lamp was 6 ft. from the floor, and that there was no sign of gas?—I do not know how I could have said that, because the place is only about 7 ft. high.

150. You say the place was very wet?—Yes; very wet underfoot.

151. Is that usual in the Kaitangata Mine, to find a very wet place in a heading?—Not always.

152. As a matter of fact, is not the Kaitangata Mine, in the headings, an unusually dry mine?—As a rule, they are.

153. And yet this place was a very wet place?—It was very wet underfoot.

154. You worked with a coal-cutting machine?—Yes.

155. Did not the working of the machine have the effect of creating a lot of fine dust?—Yes.

156. You remember where Mr. McCormack's broken lamp was?—Yes; at the end of the pipe, on the floor.

157. You do not usually find gas there?—Certainly not.

158. What brought the gas there?—It came off the face. When the air was turned on and went into the bottom it brought the gas with it, and down on to Mr. McCormack's lamp, and exploded.

159. What was the air like in this place?—There was very little.

160. But you were working the machines with the compressed air?—Yes.

161. You had the exhaust from the machine, and the pipe in addition to that?—Yes.

162. So that there must have been a fair amount of air, and you could not call it dull?—You could call it dull, but altogether it was pretty fair.

163. *Mr. Lomas.*] Whose duty was it to cut the water-tables in the roads?—That is more than I can tell you.

164. Is it not usually the roadsman's duty to do that?—He has too much to do in the mines here to attend to that. It is generally the shift-men who do it. You have no room to do it when the trucks are travelling, so it must be done at night,

165. *Mr. Proud.*] You say that a pipe of 1 in. diameter reduces the volume and increases the pressure?—Yes; it was to give more pressure to the machine than for the gas.

166. Was it any loss to you to be shifted from the shift-work to coal?—Not at all.

167. But you think that a reason should have been given to you for the change?—I think a reason should have been given for it.

168. *The Chairman.*] Did you have a naked light on the 16th October?—No. Mr. McCormack had one.

169. *Mr. Donaldson.*] We have been told that the effect of the stroke of the machine would be to create a fine dust, and you have said that there was no water in the place: would the dust accumulated remain dry or be damped with the water?—I would say it would be naturally damped with the water.

GEORGE HERBERT BROOME examined.

1. *Mr. Donaldson.*] You are the present mine-manager for the Kaitangata Railway and Coal Company?—Yes.

2. You know the witness, John Brown?—Yes.

3. Where was he working last on shift?—In No. 4 dip.

4. Is he working there at present?—No.

5. Why?—He is working on coal at present.

6. Is that the reason he is not working in No. 4 dip?—Yes.

7. Is there any other reason?—No. 4 dip was stopped for a short time.

8. Can you give us the date when it was stopped?—It was the date of the cavil, the 8th February, I think.

9. When did this dip start again?—About a week after that, I think.

10. If I said it was three days after that would you contradict me?—I say it was about a week.

11. Are the men working in the dip at present working piecework or shift-work?—Shift-work.

12. What are the names of those men?—The two Newburnes and Wilson.

13. Were the two Newburnes prominent witnesses in the action Aitcheson *v.* the Kaitangata Railway and Coal Company?—I really could not say.

14. How much are the men paid per ton working piecework?—3s. 6d.

15. Do you always pay them 3s. 6d.?—Except when taking out head-coal, or taking out pillars. We always pay them in accordance with the award.

16. Do you ever take off boxes?—Occasionally boxes are stopped if they are improperly filled.

17. Is there any agreement between the management and the workmen as to what amount shall be kept off?—It is a matter which is left in the hands of the checkweighman. If a box is improperly filled, he calls on the workman when he comes from his work, who may perhaps get paid dross price for it. There must be some check of the kind, and it is provided for in the Mining Act.

18. Have the men got a checkweigher?—No, but they could have if they liked.

19. They are working under measurement?—Yes. As a matter of fact, there are very few boxes that are up to the measurement when they come to the surface.

20. Have you consulted any one before deducting anything from the miner's earnings?—The miner himself has been consulted.

21. Where you saw a box was small you deducted something for it?—On one occasion I did. The boxes were afterwards paid for.

22. Have you deducted anything for boxes on the alleged pretence that there was dross in them?—Not on the alleged pretence. We have deducted something when there was dross in them.

23. Have you ever given any of these boxes back when you have ascertained that the man was in soft coal?—Yes, I have. If a man is in a soft place and cannot possibly clean his coal, although the box may have been kept off by the banksman, I have given the box back when he has come to me and said that he has done as well as he could.

24. You admit that you discharged a few truckers?—They left their work—they struck.

25. Do you remember me coming to you on any occasion and calling your attention to the condition of the road?—Yes.

26. What did you say?—I said I would have it attended to. That was a few days before the truckers left.

27. Was it attended to?—It was.

28. The road, you admit, was at times in a bad condition?—There was considerably more water on the road at times previous to the truckers leaving work than there was on the day they left; and when you called my attention to the state of the road I gave instructions for it to be rectified.

29. If a road is out of repair can the miner, if he so desires, or the man trucking on the road, leave and go home?—If it is dangerous he certainly should leave it, but if not he has no right to leave his work—practically strike—when perhaps five minutes' work would fix the road up. We have had truckers leave work at Kaitangata for very trivial things.

30. If a workman goes to work in the morning, and has to wait about till dinner-time without earning anything, is he supposed to wait?—His duty in that case would be to come and lay a complaint to the management, because in such a case some of the officials would possibly be neglecting their duty.

31. Supposing a man went into a place and waited until dinner-time, and were to earn no money, would he be right in going home?—I should think so, certainly. I would not expect him to work there under such circumstances.

32. Say that truckers when working are supposed to earn 10s. a day, but on account of the state of the road they can only earn 5s., do you consider that, under those circumstances, they would be justified in going home?—I certainly do object to them going home without first making a complaint to me. I object to them sticking up the work of the mine.

33. If those workmen were working for 5s. where they ought to have been making 10s., were they justified in going home?—I know of no such conditions, but they certainly would be justified in making a complaint about it.

34. *The Chairman.*] When the truckers came out were the hewers idle?—Yes.

35. Did the hewers come then?—Yes, when the truckers left work the hewers followed their example. The trucking is included in the 3s. 6d. paid for the coal.

36. *Mr. Donaldson.*] The truckers left their work because the roads were bad, and they were only making 5s. where they should have been making 10s.?—The evidence goes to show that the roads were better the day they went away than on the previous day. The boys came back the next morning.

37. *The Chairman.*] What were they told?—They were sent back by one of the officials, and told that they would have to see me.

38. Did they see you?—I do not think so until some time after. They saw the secretary of their union, and he told me about it.

39. And the result was that letter?—Yes.

40. Did any of those truckers see you subsequently to leaving their work?—Yes, some little time after. Some a few days after, and some a week or so after.

41. Did you re-engage them?—I re-engaged one of them—Douglas.

42. For any special reason?—Yes, I heard from him and others that he did not want to come out; that he and another had spoken against coming out; and after verifying his statement, by asking one or two of the men who were there at the time, I allowed him to go back.

43. Was it possible for any of these young fellows to see you the following morning when they were told by the underviewers to do so?—They could have seen me very shortly afterwards. I met one of them at the Kaitangata crossing when I was going up to the mine, and, seeing that he was clean, I asked him what was wrong. That was Ramsay. He said, "We cannot truck on that road, the water is up to our knees." I immediately went to the mine, and went down to the place quite prepared to give the underground officials a bad time of it if such was the case; but to my surprise I found the road better than it had been for some time past. The water in the deepest place I could find—in between the sleepers—was about 2 in., and only about 20 ft. to 30 ft. in length.

44. What did you do?—I gave instructions to the underviewer to try and get this water off; but I felt confident that the truckers had not left for that reason. It was just before the cavil, and I felt quite confident that they were leaving for some other cause.

45. Can you suggest some other cause?—It was a hard road to truck, and the truckers were not working agreeably together. Shortly before that I had gone in when there was a block on the

road on account of one set of men with empties pushing against another set with loaded boxes coming in the opposite direction and neither giving way.

46. Have none of those men gone back?—I think that all who were here are back now. Two, I think, went to the West Coast. They all admitted that they were wrong in leaving in the way they did, and I wished them to put it in writing, either severally or jointly.

47. Did you ever want them to sign a statement that the road was in good order?—No, only that they were wrong in leaving their work in the way they did.

48. *Mr. Donaldson.*] You say that about a week after you re-employed Douglas?—I think I said a few days after.

49. How old is Douglas?—About forty.

50. Is he a member of the union?—I think so. I do not know who is and who is not a member.

51. Did you start any of the other truckers about that time who were members of the union?—No.

52. Did any of them request you to give them a start again?—I have already stated that some of them saw me a little while after.

53. And after they had seen you did they start the next day?—No, I wanted them to state that they were wrong in leaving their work in the way they did. Why I held out particularly on this occasion was because of this: The truckers had left their work for trivial causes before, and against the wish of their mates who were working at the face, and I wished to bring about a better state of affairs than that.

54. A deputation interviewed you in reference to the truckers being discharged the day after they were discharged?—Yes.

55. Were they successful in getting the lads back to their work?—No.

56. Why?—The deputation admitted themselves that the road was not very bad that day the truckers left.

57. *The Chairman.*] On the 30th January you wrote a letter saying that if the committee would undertake to put a stop to such high-handed proceedings you would let the truckers return to work, or to that effect?—Yes.

58. You wished the truckers to sign a paper admitting that they had acted wrongly?—Yes; either the committee or the boys.

59. *Mr. Donaldson.*] Is it customary about Kaitangata that the workmen should be requested to sign papers by the management?—No, I have made no such request before.

60. Have you heard of anything of the kind before?—No.

61. *The Chairman.*] Have you anything to say about the picnic?—Yes; I have some letters to put in. On the 16th January a letter was received from the general manager at Dunedin, stating that the company could not give the usual donation to the picnic fund, for reasons stated in the letter. The first intimation I received that the picnic was going to be held was from the chairman of the picnic (Mr. Duncan), in a letter dated 16th February. When I received that letter I inquired at Dunedin as to the state of the trade, and asked if the Friday on which it was proposed to hold the picnic would interfere with the company's arrangements. The reply I got was to the effect that we were a long way behind with our orders, and that we were likely to be short of wagons towards the end of the following week, owing to the Wingatua races. I was asked to try if possible te get the date altered until the following Friday, which would not interfere so much with the company's trade; or, failing that, to endeavour to get it held on the Saturday, as the mine works half a day only on Saturdays. We would thus gain a shift. I saw Mr. Duncan the following afternoon coming from his work, and asked him to try and get the date altered until the Friday week. The following morning (Wednesday) I received this reply from Mr. Duncan: "Kaitangata, 20th February, 1901.—Mr. Broome.—Dear Sir,—I did not see many of the Committee last night, and the few that I did see are not in favour of altering the picnic.—Yours faithfully, William Duncan." I had told Mr. Duncan I should be very pleased to be at the picnic myself, but the date was not suitable, as it would interfere with the company's trade. After receiving Mr. Duncan's reply I posted the notice which has been already put in evidence at the mine-mouth on the 20th February, stating that I would hold the committee responsible. On the 26th February Mr. Watson received the following letter from Mr. W. H. Gaw, the Traffic Superintendent, in reference to the supply of trucks:—"On the 21st instant you requested that a special supply of wagons should be given during the rest of the week, to enable you to make good arrears of orders. An effort was therefore made to meet you, and at considerable inconvenience an increased supply was sent you on Thursday night and Friday morning. I am, however, advised that the mine did not work on Friday, and consequently no loads were sent up for the afternoon goods, and that the wagons supplied were still empty up to the night of the 24th instant. I shall be glad to hear from you as to the undue detention of trucks.—Yours, &c., W. H. Gaw, Traffic Superintendent." In consequence of these men absenting themselves from work, and in accordance with the notice put up, the four members of the Picnic Committee—the president, vice-president, secretary, and treasurer—received the notice of dismissal that you have seen. We considered that those men were chiefly responsible for the breach, because undoubtedly if the men had been advised by their officers differently there probably would not have been the trouble, and the picnic would have been postponed.

62. *Mr. Donaldson.*] Were you advised to discharge the twenty members of the Committee?—No, I had no advice; but of course the general manager and the directors in Dunedin were consulted before the men were discharged.

63. *The Chairman.*] Did you act on your own responsibility, or under instructions?—It was not entirely on my own responsibility. I was in consultation with the chairman and the Dunedin Board, and I was advised by them in the matter.

64. *Mr. Donaldson.*] Do you think it possible that those four men you discharged could lead three hundred men if their minds had been bent on having the picnic held that day?—Possibly

not; but, as officials of the committee, they should have seen that the thing was done in due form in the first place. No obstacle, I am sure, would have been placed in the way of the picnic being held on any day not injurious to the company's trade.

65. *The Chairman.*] Do you wish to say anything about the brick wall?—I consider that at the present time there is no possibility of any serious outbreak of fire at the brick wall—such as to endanger the lives of the workmen employed in the mine, or the loss of the property. During sixteen hours out of the twenty-four, when the day and afternoon shifts are in the mine, the wall is being constantly passed and repassed. There are boys working on the road who would at once detect any smoke or sign of fire. The company's officials are also passing every hour. Should any outbreak occur, there is not time for it to become serious, and it could be coped with in a few minutes, as was the outbreak which has already been referred to in evidence. The stopping is being well attended to, as are all the stoppings in the mine at the present time.

66. If that haulage-road was lost, what would be about the monetary damage to the company?—I am not prepared to answer that.

67. Would it run into hundreds or thousands of pounds?—It would run into thousands. It would practically ruin the mine. Steps are being taken to still further improve that stopping.

68. Have you any hope of getting the fire out by and by?—I believe we shall be able to completely seal off the fire, and in time to put it out.

69. Have you anything to say with regard to safety-lamps being served out that could be blown out; also as to gas in the mine, and men being put to work in gassy places?—The lamps are all examined by the deputy before being handed to the men. I cannot understand how the lamps could have been given out in such a condition.

70. Was any such occurrence reported to you?—No, but I found out on one occasion that the glass was not perfectly tight.

71. Only on one occasion?—On two occasions.

72. Is there anything wrong about the mechanism of the lamp?—They are very good lamps indeed, but they were not screwed up tight enough.

73. When we were in the mine the other afternoon, Mr. Donaldson blew out nearly all the lamps. What was the reason of that?—At the time Mr. Donaldson blew them out they had not been examined.

74. Mr. Donaldson blew them out one after another?—It was the same lamp.

75. What was the matter with it? Is it not a very serious matter if there is gas where such a lamp is used?—Yes, if the lamp is unsafe. As soon as I discovered that lamps had been given out that were not tight, I immediately instructed the lamp-man to take very great pains to screw them down, and also the officials to examine them very carefully.

76. The miner also takes responsibility, does he not?—Yes; the miner also is supposed to examine them, so that a defective lamp ought not to get into the workings.

77. Do you wish to say anything about the statements made by witnesses as to gas being found in the mine in different places?—There was a statement made by Irvine as to gas being found in Duncan's level which I should like to refer to. Mr. Lomas was in the place. It is a level in off the return airway, in a very inaccessible place. It had collapsed at the mouth, and for several chains along. The gas was not found within 400 ft. or 500 ft. of the return airway. We were able to go right to the face of this level, and I deny that there was 300 ft. of gas there. The gas was mixed with damp. I do not consider a serious explosion could occur even if a naked light were introduced there. The level was narrow, and I considered there was no possibility of the gas being driven to the return airway by any fall that could take place. Owing to the inaccessibility of the point where the gas was met with, I considered there was practically no danger to be apprehended from that gas. As to the accumulation of gas that Irvine spoke of as existing at the bottom of No. 3 dip, this accumulation was black damp, not explosive gas, at the time we visited it, although there may have been a mixture of explosive gas with it. The place was properly fenced, and a caution-board put on the fence. The accumulation was due to a temporary blocking of the airway in that particular bord, owing to water rising in the level below. The accumulation could have been removed within two hours after the pumping out of this water. Every precaution was taken in that place, and I consider there was no danger from that gas.

78. *Mr. Lomas.*] Can you tell us why this water was not pumped? — Yes. The pump at the bottom of the main drive has not been throwing its water well for some time past. We are putting in a new pump, and until this is fixed we have been compelled to allow the water to accumulate in No. 3 dip.

79. *Mr. Proud.*] Would coal-dust augment an explosion in your mine?—I am not prepared to say what the nature of the dust is, but probably, judging from the experience in other mines, it would; but most parts of our mine are so damp that there is no danger from that cause. We are expecting to have the pump fixed in about a fortnight.

80. *Mr. Lomas.*] Does this water completely block the air-course?—Yes; the air-course feeds that place only.

81. Do you consider, from the condition of the level as we found it, that it ought to have been fenced off and a caution-board put at the end?—Yes.

82. With regard to the statement made last night, that four lamps out of six were blown out in the main road, would you consider that the man who had passed those lamps was competent to pass them?—I should say not. There may have been some special circumstances in connection with it. The man may have been excited at the time, and may not have been so careful as if they were going into the workings.

83. You do not dispute that they were blown out?—No.

84. In any case, as a mine-manager, would you intrust that man to examine lamps after that where there was gas?—No; I should think very seriously about it before doing it.

85. Has he been intrusted to examine lamps since that time?—I heard nothing about that matter until last night.

86. If that statement is true would you intrust him to examine lamps in future?—If the statement is true I certainly would not allow him to examine lamps in future.

87. *Mr. Proud.*] Would it not be wise to test the lamps in gas before using them?—That is done at Home I believe. It would necessitate a plant for the production of gas to do it.

88. Have you not a gas-plant here?—No; and coal-gas is not the same as firedamp either.

89. It is not so quick?—No.

90. *Mr. Lomas.*] Do you consider it a safe thing, when men get safety-lamps, to allow them to take naked lights at all?—They take the naked lights to a certain point. Generally speaking the gas would be in a pothole in the roof. There is no great accumulation of gas in any place, and that would be removed by ventilation. The lamp-station would be fixed beyond which they would not be allowed te take naked lights.

91. In this particular station was there any official to stop them taking the naked light any further?—I cannot say there was an official, but there was a station-board stating that they were not to take naked lights beyond that.

92. When using safety-lamps are they allowed to take their pipes and matches?—They are not supposed to do so, but no examination is made.

93. Do you consider that necessary?—The gas in the working-places is in such small quantities that, although a man is given a lamp by the deputy to go in with if he has any suspicion, after they start to work the places the gas is immediately dispersed, and they see no more of it in the shift.

94. If they have to work with a safety-lamp for five minutes, do you think they should have a pipe and matches in their possession for that five minutes?—They should not be allowed to have a pipe and matches according to the rules.

95. *Mr. Proud.*] I suppose you do not approve of mixed lights as a rule?—No.

96. But owing to the small quantity of gas you have in your mine you consider it is not so material?—I have thought over the question of putting the whole mine under safety-lamps, but to guard against one element of danger I really think we should be introducing a more serious element. The gas is in very small accumulations and not dangerous, and in guarding against it by putting the whole mine under safety-lamps we should introduce the danger of falls from the roof and sides owing to insufficient light for the men to work with. We should certainly have more accidents from falls if we had safety-lamps in general use. The practice of using mixed lights at Kaitangata for some time past is justified by experience; and, although there have been one or two ignitions owing to this practice, I do not know of any cases of severe burning.

97. Would not a portable electric lamp, capable of burning about twelve hours, be very suitable?—Yes, if you could get a good light, it certainly would be a good thing. I was sent to inquire, some twelve months ago, about electric lights in use in Llynpia Mine, South Wales. I think they had 800 portable electric lamps in use there at that time. I was at a colliery in South Wales, and was sent to report on the light, with a view to their introduction into the mine I was engaged at; but I ascertained that the lamps were very unsatisfactory after they had been in use a little time. Some would only burn for an hour, some for two hours, and so on, when they would go out. I think they were supposed to burn ten hours, but they went out at all times. At all events, the colliery I was at, after my report, thought it wise not to adopt them. I do not know whether the Llynpia Mine continued their use or not.

98. You said you expected to get this fire in the mine extinguished in time?—Yes.

99. Would a chemical fire-extinguisher be of any use to you?—I have not thought of that. What I have been trying to do is to seal it off completely from the air, so that the carbonic acid gas evolved would put the fire out; but possibly, if some chemical fire-extinguisher could be introduced which could be liberated after the fire was closed, it might be of use. I have not considered it sufficiently to give an opinion.

100. Perhaps you will make an inquiry about it?—Yes.

101. In order to minimise the danger of fire, how do you lay out the workings of the mine?—I am laying out the new workings in very small sections. I am working them out as quickly as possible, leaving good pillars, and sealing them off with sand-stoppings, the object being to seal them off before they go on fire. There have been no fires so far in any of the workings I have opened out.

102. *The Chairman.*] How long have you been in charge of the Kaitangata Mines?—Thirteen months.

103. What condition was the mine in when you took charge: was it satisfactory?—It was not.

104. What was wrong particularly?—The return airway was in a very bad condition.

105. What did you do?—It was almost completely closed about a fortnight after I came here. It was very bad where the tubes are now in when I came.

106. Did you put in the tubes?—Yes; it was a very high place, and the stones were constantly dropping. It was suggested that I should drive another airway to escape the high part; but that would have taken time, and it was imperative to keep the return open in the meantime.

107. What was the ventilation of the mine like when you took charge?—The air was going round the workings in one current, with no splitting, and it was highly charged with carbonic-acid gas.

108. Did the men complain then?—They made no complaints to me.

109. Do you know of any complaints being made to any of the officials?—I do not.

110. What were the relations existing then between the company and the men—were they amicable or otherwise?—I do not think they were very amicable at the time.

111. Do you know what the points of difference were?—Old grievances, from what I could gather, and through the men considering they had been harshly treated in past times. I do not know of any specific grievances.

112. How have you got on with the men: have the relations improved or otherwise?—I think the relations are better than they were. There have been little differences lately about the discharged men and the cavilling. The trouble arose out of the dismissal of some men in No. 2 dip. It was necessary to stop the No. 2 dip entirely for some time, as we were getting too much soft coal, and the whole of the men in the dip were discharged accordingly.

113. Could they not have been put on elsewhere?—Not at the time. Most of them have since been reinstated as we have had work for them.

114. Have you made a distinction between the employment of unionists and non-unionists?—None whatever. I do not know one from the other, and it makes not the slightest difference to me so long as the men are capable of doing their work.

115. Would you call the Kaitangata Mine a gassy mine?—Not particularly.

116. Does it cause you much uneasiness?—The mine wants considerable attention owing to the number of fires in it, and the stoppings, which want examining daily.

117. And does it receive that attention?—Yes; the stoppings are all attended to.

118. You have an Accident Fund, I suppose?—Yes.

119. Is there much in it; do you pay much to the Accident Insurance Fund?—One farthing a ton is paid in to the Public Trustee. There is no registered benefit society here, so I do not know how the funds stand.

120. *Mr. Donaldson.*] Do you know the No. 3 workings?—Yes.

121. Were there fires in force there when you took charge?—No; the bords were only in their first working then.

122. Are there any fires at present?—That is more than I can say.

123. Have you put any stoppings in in case of fire?—Yes.

124. If you wish to go into the workings to-morrow and open them up, could you go in and take the coal out of them?—The coal is taken out of them.

125. Is all the coal taken that might be taken out?—I think so. It is a very bad roof, and would all be fallen now. The pillars were not left very big.

126. Is there not fire in No. 3 dip?—There was; but we did not stop it on that account.

127. Were you forced to put in stoppings?—Yes; but we worked the coal out before that.

128. On how many occasions have men been discharged since you took over the management? Have there been four to twelve, or fifteen to sixteen men?—The No. 2 dip men, I think, we discharged them in a body; and the other two occasions already mentioned to the Court—the truckers, and the picnic committee.

129. You have been in charge about thirteen months, and during that time on four occasions men have been discharged?—I said on three occasions.

130. Were the men discharged from No. 2 dip?—Yes. They were not discharged on the first occasion, it was stopped; they were only shifted.

131. What reason do you assign for discharging these men?—Simply because it was necessary to stop the output, and we discharged the men in the dip.

132. Did you use the words that, owing to the stoppage of the No. 2 dip, their services would not be required?—Yes; I think I did.

133. Were all the men discharged in No. 2 dip?—No; I think the two levels were kept going for prospecting purposes. With that exception all the places were stopped.

134. Was it for want of trade that you discharged the men?—We were making too many nuts at the time.

135. Was that the only reason?—Yes.

136. You discharged the men in No. 2 dip?—Yes.

137. You state that your sole reason for discharging these men was owing to the quantity of nuts which you were unable to sell?—Yes.

138. How many days a week were the men working when these men were discharged?—I think about four days.

139. Did you re-engage the men again?—I re-engaged some of them some time after, as the trade increased, and as we were able to sell that sort of coal.

140. When did you last stop No. 2 dip?—On the 12th January.

141. What date did you expect the general ballot to take place?—It was not until the following month.

142. It should have been the 25th January?—Yes.

143. Did you pay any extra rates in the No. 2 dip?—Yes.

144. Why?—Owing to the soft nature of the coal.

145. They were considered deficient places as compared with other parts of the mine?—The examiner said so.

146. When did you start these places to work again?—I suppose they were standing three or four weeks.

147. You discharged the men about the 9th or 10th January, the general ballot took place on the 8th February, and you started the men in No. 2 dip immediately after the ballot?—I do not think it was long after.

148. *The Chairman.*] You say you closed No. 2 dip because the coal was inferior in quality?—Because we were making too many nuts at the time.

149. How long did you keep it closed?—Three or four weeks.

150. Why was it opened again?—Because the trade had improved in the meantime, and we could do with the nuts.

151. What were you paying in No. 2 dip before you closed it?—2d. per box extra for dross. The ordinary price was 4d., and this was paid for at 6d.

152. What did you pay for it in the new cavil?—6d., the same price.

153. You did not make anything by shutting it up?—No. The men there would not have been in the cavil in any case.

154. *Mr. Lomas.*] What improvements do you propose to make in regard to the present airway?—I propose to make a connection between No. 2 dip and the top of the jig below where the tubes are. This, I anticipate, will be finished in about a fortnight.

155. At present does the air which is used in No. 2 dip go round the other working faces?—No, it goes up the centre heading.

156. It has further to travel?—Yes, very much. The connection will cut off nearly a mile of its travelling, and a very bad part of the road, so that I anticipate this will increase the amount of air throughout the mine. And not only air, but the workmen will be able to travel through this connection and not through the tubes to get beyond the brick wall. They will be able to go out at the No. 2 dip, which is outside the brick wall.

157. Did you consider the timber in the return airway is satisfactory—the timber that is broken and rotten: do you think that ought to be remedied?—We have done a great deal of work there, and there are parts of it at the present time that would be better enlarged and retimbered; but, speaking generally, I think the return airway is in a fairly satisfactory state. At any rate, it is very much better than when I took charge, and I can bring evidence in support of that.

158. Do you think the different levels on the return airway retard the progress of the air?—Yes, every level retards it to some extent.

159. Do you think it should be kept much cleaner than it is at present?—I would not go so far as that. I think it is in a fairly satisfactory state, but it requires a little further work done to it.

160. What do you think of that part in No. 3 dip? Do you think that is very satisfactory now in the event of the men having to go that way?—They do not require to go that way, but in the event of having to go that way we should have ladders in it.

161. Do you think that the large intake you have, and the continual air from the compressor going into such a narrow return, does not interfere with the ventilation of the mine?—Undoubtedly it does. If we had a bigger return airway we should undoubtedly get more air.

162. *Mr. Proud.*] The greatest friction in the return airway is at the tubes, is it not?—Yes; that would be the narrowest part, 4 ft.

163. How would that difficulty be overcome to increase the ventilation?—The only way that I see would be to make a second airway. It is evidently very difficult ground to go in, so far as I can hear. I believe they have lost three airways through that ground.

164. The second airway would considerably reduce the friction?—Undoubtedly.

165. How much more ventilation did you get by making the splits after you came?—It did not increase the quantity to any great extent, but it increased the purity of the air. It was cooler, and not charged with black damp; but owing to the small return it did not increase the quantity.

166. You had fresh air in each working?—Yes.

167. By increasing the ventilation, the mine would be much cooler, and less liable to spontaneous combustion?—Yes.

168. And if you carried out the plans that you suggest, you would get more air?—Yes; it would double the air, but I would be loth to go to any big outlay on the present returns. If our prospecting drives at Castle Hill are successful, that will probably become our main plant, in which case we should reduce the number of men working in the Kaitangata Mine, and the present plant and appliances might then be ample for some time to come. If we continue to work the Kaitangata Mine as our main producing place, then, in my opinion, the best thing to do would be to sink a new shaft ahead of the present workings altogether and erect a fan, and make a connection with this by the extension of the present main drive, and seal off all the old workings and all the old returns at the side of the main drive, so that we should not then have all these long and extensive airways to maintain.

169. The compressed air would be a great advantage towards keeping the mine cool?—Yes, it is a great advantage in cooling the places.

170. And you have command of high-pressure water?—Yes; we get water from the dams on the surface.

171. Was it not an error of judgment to put in a furnace instead of a fan at Castle Hill?—I should certainly have preferred a fan under the conditions. It is not a deep shaft, and a fan would have been more effective, I think.

172. *The Chairman.*] Have you any written requests from the Inspector of Mines to do certain work?—I do not think so. I have attended to any requests that have been made.

173. You have not letters from him?—I cannot call to mind any important letters from him.

174. *Mr. Green.*] You are aware that the ventilation of the Kaitangata Colliery has engaged the attention of the Mines Department for several years past?—I do not know as to several years past. I knew that Mr. Hayes had made some suggestions about it—I think with regard to connecting Castle Hill. That is all I knew about it.

175. You are aware that a communication drive with Castle Hill was started when you took charge?—Yes.

176. And that the then management of the mine were endeavouring to make a connection?—Yes.

177. Has that communication drive been stopped?—Yes.

178. You have stopped the drives?—They were going on both sides, but not when I took charge.

179. They are not going on now?—Not at the present time.

180. Can you tell the Commissioners the reason?—It was thought that the connection with Castle Hill Mine would be a simple matter—that it could be driven chiefly in coal, and would only take about six months to complete at the time I came here. But after driving 10 chains from the Kaitangata side from the bottom of the No. 3 dip we met with a fault, and I then went into the whole question carefully, and I found that to make this connection we should have at least three faults to cross, and if we drove in a direct line we should have 28 chains of stone to go through, and I estimated that it would take about two years to make, whether we cut the stone in a direct line or cut the three faults, which latter would make a very crooked road; and after the connection was made I considered it would be difficult to maintain. I therefore think it would be preferable to incur the expense of the shaft and fan which I have spoken about, rather than to make the connection: that is, if it became necessary to increase the ventilation at Kaitangata.

181. Have you any plans in course of preparation, or have you gone into the matter of sinking the new shaft that you propose?—No, not up to the present.

182. Have you laid the matter before the directors?—Yes, in a recent report. I might say that I have not urged them to do it immediately, for the reasons I have already explained to the Commission. We have good ventilation at Castle Hill, and if we are able to develop sufficiently from that side the shaft may not be necessary.

183. With regard to the question of the Chairman as to written requests from the Inspector, could you turn up your letters for last February?—I have not got them here.

184. Do you remember that when you came here we went round the mine together?—Yes.

185. I wrote to you on the subject a few days afterwards, and referred to the state of the mine-working, asking you to make alterations and improvements?—Yes.

186. That was a written request?—Yes.

187. Have there been others that you can remember? There have been numerous verbal requests?—Yes, with regard to small matters that you mentioned during your visit, and these were attended to.

188. *The Chairman.*] Do you know what the company's holding is in acreage?—I could not tell you. The general manager in Dunedin will be able to tell you that. The large plan of the whole of the various leases is in the Dunedin office. My mine-plan does not contain the whole area.

189. Have you anything to say as to the quantity of coal in sight—is there any failure of quantity?—The last district opened out, north level, has been smaller than previous districts, and it is very much hemmed in by faults at the present time; but I do not anticipate any immediate failure here, and we are pushing on the development of Castle Hill Mine with all possible speed.

190. Have you coal in the mine that would support a very much larger output for a long time?—Not for a long period—*i.e.*, not in view. We have a fair quantity of coal, but as a manager I should like to see more. I believe, however, there is sufficient coal in the company's freehold and leasehold properties to support a much larger output for the next half-century or more.

191. Will you give me the date when you took charge of the Westport Cardiff Mine?—About eight years ago—at the starting of operations there.

192. And you remained there about how long?—About seven years, until a year ago.

193. When you took charge what had been done in the way of opening up the mine?—A few prospecting cuts had been put in—one at No. 4 outcrop, one at the Hector block, and a small drive at Grant's face—that is, a mile or two up the creek at what is called the Cave Area.

194. It was practically unopened?—Yes.

195. You drove the main drive through the north block?—Yes. [Plan produced and inspected.]

196. You put in the air-shaft?—Yes.

197. You opened up the Hector block?—Yes.

198. Put up the bridge?—Yes.

199. And opened the Bridge section?—Yes.

200. What quantity, in proportion to the coal contained in it, did you get out of the North block?—I suppose about a half.

201. What induced you to leave the other half and go on driving towards the Hector block?—The coal was soft and unsaleable at that time.

202. You thought it best to continue working south?—There was nothing to the north. We continued towards the Hector block.

203. At the present time do you think there is any quantity of saleable coal in that block?—I do not think there is any considerable quantity.

204. Could you express it in tons?—Not straight away, in tons in that block. I could give you some idea of what could be got by taking out the pillars in the whole mine and working the coal area between the North block and the Hector block.

205. How would you express it?—I should say there are from 80,000 to 100,000 tons that could be taken out of the whole mine.

206. Of coal of all classes?—Chiefly soft coal—coal that was unsaleable at the time the company was working. That includes the Bridge section. The good coal was completely exhausted, with the exception of the pillars that were left to support the roads. We had practically no hard coal in the whole mine.

207. Was that the reason why the mine was closed?—Yes.

208. That happened about when?—About eighteen months ago.

209. Can you give us the absolute date when you left?—The 25th January.

210. You gave notice to the Inspector, Mr. Tennent, that you had done so?—Yes.

211. Up to that time had there been any sign of fire in the mine?—No.

212. No sign whatever?—With the exception of a little heating in the Dip district, where we had a clay roof. [Place marked on plan.]

213. Was that heating in existence at the time you left?—No. The dip was full of water long before I left.

214. Where did the fire break out?—It was supposed to be in the long jig.

215. Were you surprised when you heard that the mine was on fire?—I was very much surprised. It was the last thing I thought of. I wired to Christchurch that I thought spontaneous ignition unlikely and suspected incendiarism.

216. Do you still think that?—On thinking it over since I cannot see what object any one would have in setting fire to the mine; but I think spontaneous ignition unlikely, from what I know of the mine. There was a sandstone roof over the Hector block similar to the North block, and I had seen no heating in the North block, which had been standing open for a period of six or seven years.

217. You would not say that spontaneous ignition was impossible?—Certainly not.

218. If it has been said that large blocks of marketable coal have been lost through the fire, what is your comment upon that?—My comment is that the pillars were carefully and sytematically worked out.

219. Would you say that large blocks of marketable coal have been lost through the closing of the mine?—The coal was not marketable when I left. Had the mine been working a few months longer the market would have changed. The soft coal was not marketable when I left. No considerable quantity of hard coal has been lost. The hard coal was successfully pillared.

220. And in the Bridge section do you say there is no hard coal?—Very little. There were two faces of fairly good coal, but it was considered impractical to work these faces by themselves, and when mixed with the other coal the coal was unmarketable at that time.

221. Do you know Peter Martin?—Yes.

222. Was he a good workman?—A very good workman.

223. Was he a reliable man?—I regard him as a very reliable and trustworthy man. He worked with me at the Cardiff Mine.

224. How long?—Almost from the commencement—nearly seven years. He was a man I had every confidence in.

225. Do you remember an incident when you, Mr. Marshall, and Mr. Tennent visited a place where a man named McGill was working?—I cannot say that I do; but I remember where McGill was working on a certain occasion, towards the top of No. 2 heading of the Hector block.

226. Do you remember a complaint made by the men that the air was bad?—I cannot say that I do.

227. Do you remember saying that the place was all right, and that you had a good mind to "sack" the men?—I have no recollection of that.

228. Perhaps you were not the mine-manager?—Yes; Mr. Marshall was the under-manager at that time. [Evidence given by McGill read to witness.] Mr. Tennent, Mr. Marshall, and myself went down and found the men sitting at the top of the dip. I asked them what they were doing there, and they said the place was not safe to work in. The three of us then went down the dip and made a very careful examination. They had said the dip was working, but we found it perfectly quiet. There was not a sound of anything in the mine. My opinion was that the men had come up to annoy the underground manager, whom I knew they had a grudge against, or whom they disliked. I said that the dip was perfectly quiet, but if they considered it dangerous they had better go home. One of them said, "If yon man," referring to the Inspector, "says it is safe, we will go back." The Inspector then said it was safe, and that he thought they had better go back to their work. Beirne said, "If you go with me I will show you where it is not safe." "I have examined your place carefully, Beirne," said the Inspector, "and I know when a place is safe. I will not go back now, but I will come back in two hours' time and see how the place is then, after you have been working." We went back in two hours' time and the place was then quiet and as we had left it.

229. *Mr. Lomas.*] Did Beirne work during that two hours?—Yes; they all went down to their faces. I do not remember saying anything about "sacking" them all; but I said what I have already stated, that they better all go home if they felt it was unsafe; and I felt somewhat annoyed, because I thought it had only been done to annoy Mr. Marshall, seeing that it was all quiet when we went down before.

230. How often would the Inspector visit the mine?—I suppose three or four times a year.

231. Did you know when he was coming?—I had no idea.

232. Did you make any preparations for his visit?—Certainly not.

233. Was there much refuse left in the mine?—Not a great deal.

234. How was the coal filled?—With the shovel. There was no slack left in the mine.

235. Was a man ever dismissed for complaining of the air in any other part of the mine?—I cannot call to mind any instance.

236. Would you have done such a thing?—No. If the conditions were bad in any part I would have tried to remedy them, not punished a man for complaining.

237. What was the ventilation of the mine like?—It was good.

238. If any man said the air was bad, would you contradict him?—Yes, I would.

239. Do you remember a man sending a letter to the Minister of Mines complaining of the air?—I remember the circumstance. I do not remember what the letter was about.

240. Who told you about the letter?—The Inspector brought it out with him and showed it to me and to Mr. Bayfeild.

241. Did you go to the mine with Mr. Tennent?—I did, and Mr. Bayfeild.

242. Did you call the men out who were supposed to have signed the letter?—We went to their places.

243. Who were they—Tressman, Beirne, and Pratt?—Yes, and Foster.

244. Did you ask them about the letter?—The Inspector asked them if those were their signatures. I think Pratt was the first man he went to.

245. What tone did he say it in?—I could not say he was angry.

246. Did he seem angry, or was he civil?—He asked in a civil tone.

247. What did they say?—I think Pratt said it was his signature.

248. Did he say anything more?—He said that, although he had signed it, he had not read what he had signed, and that it was not true.

249. Was anything said to Pratt after he said it was not true?—I think he was asked what he had signed it for if it was not true.

250. Do you remember what he said then?—No, I do not. We then went into Foster's place Foster was secretary of the union at the time, and Mr. Tennent told Foster that Pratt denied the statement. I do not remember what the statement was at present. Foster said, "I will go with it to Pratt," and we went with Foster again to Pratt. Foster asked him if he had not read the complaint before signing it, and Pratt said "No." Foster asked if he (Foster) had not read the complaint to him (Pratt), and he said "Yes," but that it was not true. After that we went to Beirne's place. Beirne's name appeared to be in the secretary's handwriting.

251. Did Mr. Tennent ask Beirne if that was his signature?—Yes.

252. And Beirne fenced a little, and said he was not sure?—Yes. He said he could not see it—that he had no glasses; and Mr. Tennent lent him his. At last he said he could not be sure about his signature, but he had made a complaint.

253. Was Mr. Tennent harsh with him?—Yes; Mr. Tennent was rather cross.

254. *The Chairman.*] Did he say what he would do with him?—No, but that he was not a safe man to be in a coal-mine; that he (Tennent) knew when a roof was safe and when it was not. That was in reference to the east dip incident. I think after that we left the place.

255. Was Foster dismissed shortly after that?—Beirne was dismissed the same afternoon.

256. Why?—I thought it was hardly safe to keep a man after the Inspector had expressed that opinion about him, and I stated so in a note I wrote to Beirne.

257. *Mr. Lomas.*] Did the Inspector express that opinion to you after you had left the place?—No; we did not speak about the incident after we left the place.

258. It was based on what he said to the man?—Yes, in his place.

259. *The Chairman.*] How long after did Foster continue in your employ?—That I cannot tell you. I do not remember Foster being dismissed. I do not think Foster's dismissal had anything to do with this incident.

260. Did you afterwards offer to reinstate Beirne if he withdrew his charges against Mr. Tennent?—I do not recollect that.

261. Did you write to Mr. Tennent subsequently and say, "I hereby emphatically declare that you did not use your influence in any way to get Beirne discharged, and, further, that when you heard of his dismissal you urged his reinstatement"?—That is correct. He did not use his influence further than what he said in Beirne's place. Nothing passed between us afterwards. Mr. Bayfeild was there at the time and heard him make use of the expression.

262. Was Tressman dismissed?—Yes.

263. What for?—Absenting himself from work without leave.

264. For nothing else?—He was working in a narrow place we wanted to get through, and he was off work on several occasions.

265. Not from bad air or anything of that sort?—No.

266. *Mr. Proud.*] He was President of the Conciliation Board, and that took him away from his work, did it not?—Yes; but for all that he could have asked for leave to get away.

267.] *Mr. Lomas.*] Was he discharged for being absent when sitting on the Conciliation Board, or for being absent on other days?—I did not know what he was doing.

268. *The Chairman.*] Was he absent at other times than when he was sitting on the Conciliation Board?—Yes; he was a very weak man in his health. I must confess there was a little feeling at the time between myself and the union. They had a case before the Arbitration Court for the wrongful dismissal of a man named Fleming at that time, and it was held by the Court that he had not been badly treated.

269. To go back to the general condition of the mine, was there a difficulty during any period of your management when funds were not available for doing necessary work?—Yes; there was always a difficulty in getting funds. The blocks of coal were small.

270. The company did not make a profit, I believe?—No.

271. When you left, whom did you leave in charge?—My brother was left as caretaker.

272. Did you appoint him?—No; I had nothing to do with the appointment of a caretaker.

273. *Mr. Proud.*] You were down the long jig with Peter Martin not long before you left?—Yes.

274. Were there no signs of fire then?—No.

275. Is it not an important thing to take prompt action when there are signs of fire?—Most decidedly.

276. Do you think a staff of men should have gone in when there were any indications of fire?—Good pillars had been left in, and if the seat of the fire could have been reached and effective stoppings put in—there was no difficulty about that, as the pillars were 22 yards square, with a good roof and pavement—the fire would have been prevented going on the main road. I got a wire from my brother in Seddonville and one from the directors in Christchurch about the same time in reference to the fire. I was at Nelson. The directors asked me to wire advice to my brother at Seddonville. Wiring to the directors I said I thought spontaneous ignition unlikely. The only places I could think of where fire was possible was where the most pillaring had been done. That

was either up the long jig or in the level district of the Hector block, as most of the pillaring had been done in those two places, and the coal was the softest at those two points. I wired, "Fire probably up long jig or level district near Bridge road. In either case attempts should be made to shut off air from affected district. Wire when seat discovered. Here till Tuesday, Wellington till Thursday. Act promptly. Get all assistance available." That was to my brother.

277. The Cardiff Mine produced several different kinds of coal, did it not?—Yes.

278. And frequently you had only trade for one kind of coal?—That is so.

279. How could you work the mine properly under those circumstances?—We simply had to work at the hard faces and let the soft ones stand.

280. You would be working at a great disadvantage on that account?—Yes. It would have been better if we could have taken everything in the face. There are one or two things I would like to say in connection with Messrs. Shore, Alison and Foster's report. The report states, at page 7 of Parliamentary paper C.–8: "Prior to the discovery of fire apprehensions appear to have existed that the coal in the mine, especially in the Hector block, was liable to spontaneous combustion. As proof of this, Mr. John Tressman states that about eighteen months ago, Guy Fleming and son, who were working on the right-hand side of back heading, saw cloud-like fog, which died away in two or three days. He (Tressman) examined the locality several times and found it hot." I remember that occurrence of the cloud-like fog, and the McGills were working in that place at the time. There was a fall of coal, and just afterwards we broke through the cliff side, and the heated air from the mine—there was a big heap of coal just in front of the opening in the cliff—coming into the cold air from the gully, condensed and formed a sort of cloud, and it appeared at first that steam or smoke was rising from this heap; but we filled into the middle of it, which was just near the outcrop inside the mine, and found it quite cool. I was round that place several times afterwards and never saw any indications of heating at all. It was simply hot air coming into contact with the cold air in the gully. That died away and we saw nothing more of it. That seems to have been magnified into a fire.

281. *Mr. Lomas.*] Was that in the winter time?—Yes, as far as I can remember. The report goes on to say: "When Mr. Broome was informed at Wellington that mine was on fire, he wired in reply, 'Surmised fire in long jig or level workings.'" I sent no such wire. With regard to what they say as to the refuse, I wish to state that the refuse consisted of hard stones found in the coal, and it was filled out more in order to have the place cleaned for dropping the tops than on account of fire, which we had no fear of at that time.

282. That is the stone that runs irregularly through the seam?—Yes. They make a further statement that "The quantity of rubbish tipped at mine-bins does not appear sufficient in quantity to us to bear out statement that all rubbish was brought out of mine, and we are inclined to believe that stone has been left in workings." I do not know how they could have any idea of what rubbish could have come out of the mine and what not, seeing that they were never in the mine. It might have been considerably more or very much less. Further on, at page 8, they say:—"Hector block.—From survey-books we find that splitting and robbing of pillars commenced July, 1897, and continued till January, 1898, and from information gleaned we understand it was customary, upon a rush for coal, to fill all loose coal upon sides of pillars up till quite recently." I wish to take exception to that. The pillars were always worked out in a systematic manner, and were never robbed.

283. *The Chairman.*] Not robbed or split?—They were split. They were worked out systematically. We never filled up the loose coal off the sides, and we did not take the coal out anyhow. In support of my contention I will read an extract from Mr. Tennent's report to the Mines Department for 1898. At page 3 he says: "The level section of solid workings which runs between the two main faults still continues in good coal, and it is safe and in good working order. The pillars worked from the outcrop on No. 1 incline are very satisfactorily removed, and, as great care has to be exercised for the safety of the miner, every precaution is taken."

284. *Mr. Proud.*] Did you anticipate that there would be any difficulty in extinguishing the fire?—I did not.

ALLENDALE.

THURSDAY, 21ST MARCH, 1901.

ALLAN MCINTOSH examined.

1. *The Chairman.*] You are managing director of the Allendale Coal Company (Limited)?—Yes.

2. The capital of the company is nominally how much?—£20,000.

3. Divided into what?—10,000 shares of £2 each.

4. How much is paid up?—£4 per share.

5. How is the company formed: was it private property of yours and some one else?—It was my private property for the first few years. I opened the mine.

6. How long ago is that?—About fourteen years ago.

7. Is there any other large shareholder in the company except yourself?—I admitted Mr. James Allen, and disposed of a third share to him; but six or twelve months later I admitted him to half-share, so that it was McIntosh and Allen.

8. It was not registered as a company then?—No. Later on it was put into a limited-liability company.

9. How long ago?—Probably ten years ago.

10. There must be seven shareholders in a limited-liability company: who holds the balance of the shares?—It is held by myself, by some members of my family, by Mr. Allen, and others.

11. Up to the time of forming the company—say, up to ten years ago—was it a profitable concern?—It was paying its way at that time, but paid no dividends.

12. And the output then was about how much a year?—Probably from 4,000 to 5,000 tons.

13. Had you a private railway then?—No.

14. After you registered the company you built a private railway?—Yes.

15. For what distance?—A distance of two miles.

16. When did that happen?—About seven years ago.

17. What is the amount you spent in opening up the mine—the value of the plant and machinery?—Say, £16,000, including the railway, which I value at £5,600.

18. Has that money come out of the mine?—No, I am sorry to say it has not.

19. You and Mr. Allen found the money?—Yes, the most of it. The work has not paid a shilling's worth of it.

20. Then, the capital of the company would have to be more than £4,000?—Yes.

21. For the last seven years what has been the average output of coal?—About 13,000 tons per year.

22. Where did you sell it chiefly—at the pit-mouth, at the end of the railway-line, or do you have agents?—I have agents representing me from Ashburton right through to Dunedin. They buy from me. I sell it at the pit-mouth except at Dunedin. I sell it on the main line at Bushy Station.

23. What do you get for it?—10s., 12s., and as high as 14s. a ton at Bushy for round coal of the best quality.

24. Do you sell any slack?—A large quantity of it at the same place at 1s. per ton.

25. Do you sell nuts?—Yes, at 8s. It is only within the last twelve months that I have been getting these prices.

26. What do you pay for hewing the coal?—The lowest is 3s., and up to 10s. in deficient places. We pay an average of 6s. 9d. a ton all round for all the coal produced.

27. How is it made up?—From the pillar-work 3s. to 3s. 6d. a ton. That is the most easily produced coal of the lot. The other costs up to 10s. a ton.

28. What is the award price?—Pillars, 3s. to 3s. 6d. per ton; levels, 4s.; and headings, 4s. 6d. Deficient places are paid day-wages.

29. Does that include any trucking?—No. The man fills it at the face for that.

30. Have you any idea of what it costs on an average for trucking?—A trucker will do an average of twenty trucks per day. There are thirteen truckers, whose wages vary from 8s. down to 4s. 6d.

31. How long have these prices been in existence?—About nine months or so.

32. Can you tell us what the price was before the award?—Similar to the award. Previous to the award we were paying 9s., and now we pay 10s. for day-wages.

33. Has the mine been profitable for the last few years?—For the last year it has been, but that is the only year.

34. What is the profit for the year?—Not more than £300.

35. Do you know anything about the internal working of the mine?—I prefer that any question as to the interior of the mine should be answered by the mine-manager.

36. Is he registered as mine-manager?—Yes.

37. Is there anything you wish to say with regard to the condition of the intake?—Yes; I have instructed Mr. Gillanders to have the whole of that intake enlarged within the last week or so up to 4 ft. by 4½ ft., which is sufficient. I asked him yesterday if he had put the men on to the air-course, and he said Yes.

38. How long has it been in the condition we saw it in to-day?—Only since a week ago. There is a creep in it, and that is what I want. I want the floor and pavement to meet, and then I can enlarge the passage.

39. Has that air-course ever been totally stopped during the last three months?—It has not been totally blocked. There is no impediment in the passage, but the men were prevented on one occasion during the last three months from working owing to a change in the atmosphere.

40. Has the place been so blocked that a man could not get through it?—No. You have seen it in its worst state.

41. Do you wish to say anything as to the condition of the main haulage-road?—No.

42. Are there not many places where the roof has come right out, and the timbers gone?—No, not from the horses up to daylight. I flatter myself that from daylight all that thoroughfare to where the horses are is in tip-top order.

43. Do you think the trucking-road is in a bad state?—I consider that under ordinary circumstances, and compared with other collieries I have been through, it is good. There is a little damp there for a distance of about 80 yards.

44. You consider the trucking-road is only a little damp?—Yes.

45. Do you wish to say anything about the air-faces where the men were working in No. 2 bord, No. 2 jig?—If the ventilation is not good I will see that it is rectified at once.

46. Do you know how long it is since the mine was inspected by the Government Inspector, Mr. Green?—Not this year—it is a matter of months.

47. Has Mr. Green ever made any requests to you as to work to be done in the mine?—He would correspond with the mine-manager.

48. What is the area of the property?—800 acres, which we have thoroughly tested, and found to contain coal for the greater portion of it.

ALEXANDER SINCLAIR GILLANDERS examined.

1. *The Chairman.*] You are mine-manager of the Allendale Colliery?—Yes.

2. There are how many hands employed at the colliery?—About fifty, of whom about forty-five are employed underground.

3. What shift wages do you pay?—10s. per shift.
4. What do the boys and truckers get?—5s. a day for truckers, and upwards to 8s.
5. How long have you been mine-manager?—Close on three years.
6. Did you work in the mine before that?—Yes; between nine and ten years in and about the mine.
7. During that time you had how many Inspectors visiting you?—I think, three Government Inspectors during that time.
8. Mr. Green has been here how many times?—Two or three times.
9. Has Mr. Green made any requests to you for work to be done in the mine?—Yes.
10. In writing?—Yes.
11. What did he ask for?—Previous to the air-course being cut through, our air-course was in a different position—it was located in a different part of the mine. It was recommended that the air-course should be altered, and a new one was opened up. It has only been closed for a year or two, and then it was opened up again through some old workings.
12. During that year or two what did you do for an air-course?—We had another air-course, which came down in a different part of the workings.
13. Was the air bad?—It is natural ventilation. Some days we have first-class ventilation, and sometimes it is dull. With a fairly good wind the air is very good, and occasionally it is too dull to work.
14. Would you say it was bad to-day?—It was dull.
15. Do you ever get a bad day?—We have had two within the last fortnight, but we had not any before that for a considerable time.
16. What is your explanation of the condition of the intake now?—It is in a very bad condition, but I am in no fear of it closing altogether. It is so small that a further air-course will have to be made.
17. Do you think it is safe to travel?—I have not the slightest fear about it. I have watched it all along, and, although timber makes it look very wild, I have not the slightest fear of it closing. It is getting too small for an air-course.
18. Taking the air as you have it, is it properly directed on to the faces?—It is directed all right, but there is a considerable leakage at the screens.
19. What is the reason of that?—It is difficult to keep the screens tight when the boxes are going through. You cannot keep doors on, because it is creeping every day. To keep the screens up with the boxes tearing through them is a difficult matter.
20. Is not the air going through a number of stentons that ought to be closed off?—Yes. I have omitted that; but you have a large body of air going through, although not in all those faces.
21. Do you think the place was fit to work in to-day?—It certainly was not very good. There are two particular places—No. 2 bord, and the level in No. 1 seam.
22. Do you think the main trucking-road is fit to travel?—I consider that from the mouth of the mine to where the horse stops it is in first-class condition.
23. What about the broken timbers and falls from the roof?—There are no broken timbers in the dip.
24. I saw several places where the timber had slipped?—A lot of that timber was taken out.
25. What about the horse-road?—It is in first-class order, and has been newly done.
26. Take the haulage-road, where truckers have to work, for instance?—The road itself is in good order, but in places it is certainly wet and muddy.
27. And over the boot-tops?—It is not over the boot-tops.
28. Are you contemplating any improvements?—Yes; we have a fresh airway under consideration.
29. What other works have you in contemplation?—The air-course is the main one. There is a considerable amount of heightening to do, with the object of getting the pony up. That is about the only new work.
30. Have you taken many pillars out?—Yes, a considerable number.
31. Where principally?—Between the long jig and the outside jig.
32. Is there any black damp in the mine?—Yes.
33. To a dangerous extent?—Not to a dangerous extent.
34. Do you find that the air baffles at all?—Yes, occasionally.
35. And then black damp gets in between?—No; the black damp is given off gradually by the workings, and the coal itself. The black damp comes out of the strata continually, I might say. When it comes out in larger volume than the air can carry away it causes the air to be bad.
36. Have you had any complaints from men about the air being bad?—No formal complaints.
37. Have you known any of them to knock off work through it?—They have knocked off work twice within the last fortnight, but that has not been the case before for a considerable time.
38. How often is that intake traversed?—Every day.
39. What is the average wage the men are able to make by contract?—I think it is between 10s. and 11s.
40. Do they get pretty constant work?—In the summer-time it is not more than three or four days per week perhaps, but during the last four months they have averaged four days a week.
41. What is it as the winter approaches?—It increases, and we work pretty well full time. Previous to the last six months it has been very good.
42. You get between 13s. and 14s. a ton on the railway for round coal?—Yes.
43. And it sells in Dunedin for about £1 2s. a ton, does it not?—I do not know.
44. *Mr. McIntosh.*] You were asked the average wage of the men?—I could not give the average without reference.

45. I think I drew your attention to the fact that the wages-men were the smallest-paid men in our employ—10s. a-day?—Yes.

46. You have now two men employed to enlarge the air-course?—Yes.

47. And you consider it quite safe in the meantime?—I consider it is getting too small, but I have no fear about it.

48. What is your object in enlarging it now?—To allow a larger body of air to enter.

49. And to secure it?—Yes.

50. How long will it take to do that: will it take six weeks?—Yes.

51. And you will make the air-course up to 4 ft. by 5 ft.?—Yes.

52. Is there any possibility of improving the trucking-road where the truckers are travelling?—Yes; but the bottom is soft and creates mud, and it is difficult to get it dry.

53. How is the roof there?—The roof in parts requires timbering up, which is done. In other parts it does not require timbering, as it is sufficiently good without.

54. Where it requires timbering is it already timbered?—Yes.

55. Do you consider the trucking-road in a good condition so far as the roof is concerned?—Yes.

SHAG POINT.

THURSDAY, 21ST MARCH, 1901.

THOMAS SHORE examined.

1. *The Chairman.*] You are mine-manager of the Shag Point Coal Company's mine?—Yes.

2. Do you know anything about the capital of the company?—No; you will have to get that in Dunedin.

3. How long have you been manager?—Seven years.

4. The mine has been working for how many years?—About thirty.

5. The present output is about how much?—From 20,000 to 22,000 tons a year.

6. Does that show an increase on former years, or is it the average output?—It is about the average for the last two years. There is a falling-off, if anything.

7. You employ how many men?—About seventy above and below ground.

8. How many above ground?—Eleven, and the balance underground.

9. Do you pay your hands under an industrial agreement?—Yes.

10. You pay your shift-men how much?—10s. a day.

11. And your colliers?—5s. a ton for bords, 6s. for headings.

12. Does that include trucking?—They have to truck 75 yards for that, and we pay for the trucking after that distance. The No. 6 seam is not under the agreement. We pay the men working in that 5s. for bords, and 6s. for headings; crossing bords and solid headings, 8s. per ton.

13. What are the average earnings of the colliers under that agreement?—Between 10s. and 11s.

14. The mine is worked from a shaft?—Yes.

15. Is it well ventilated?—Yes.

16. How?—By steam exhaust from the pump. The return air-shaft is partitioned off from the main shaft.

17. Have there been any accidents here during recent years?—There have been two or three slight accidents. One man got his leg broken. There were no accidents last year at all.

18. Was that the most serious accident?—Yes.

19. How often was the mine inspected by the Government Inspector during last year?—About twice.

20. Have you received any requests from the Inspector of Mines?—Yes; he drew my attention to patent grips for catches in case of the rope breaking. We have not carried that suggestion out so far.

21. Why not?—It is expensive.

22. Are you satisfied with the safety of the catches?—We are satisfied. We examine the main parts every day, and have a thorough inspection every week.

23. Is the mine profitable?—I will refer you to the office for that information. I believe it is clearing itself.

24. Where do you sell the coal—at what does the purchaser take charge of it?—From the sidings.

25. What do you get for it there?—15s. a ton.

26. And for nuts?—6s. to 8s.

27. Do you sell any slack?—No; it goes to sea. You cannot sell it. We can wash it away here without trouble.

28. Is there a safe second road for the miners to come out of the mine?—Yes.

29. Are the roads in good order?—Yes; they can gallop as quick as they like.

30. Are you troubled with creep in the mine?—Yes; the long-wall is all creep together.

31. *Mr. Lomas.*] Do you drive down to the boundary-roads and bring it back?—We take it all with us, and the road is in the goaf.

32. *The Chairman.*] Why do you do it in that way?—We tried, and could not keep the roads in No. 5 seam.

33. Have you had any trouble with the men?—Very little. We can all fight our little battles without much annoyance.

34. You have not been before the Conciliation Board?—No. We shall some day with that No. 6 seam.

35. *Mr. Proud.*] You had a fire in this mine some years ago, had you not?—Yes; in No. 1 seam.

36. Can you give us any particulars about it?—The working is all blocked off now with a stone wall.

37. Is there no danger of any fire at all?—We have had fires since that—three or four—but we have sealed them off.

38. *The Chairman.*] Do you apprehend any danger from them?—No; we play the hose on the places three times a week to keep them cool.

39. *Mr. Proud.*] What is the temperature of the upcast?—I have never taken it.

40. If you put up improved screens could you make more out of the coal?—Yes; but we want to improve the coal first. We shall do no more at Shag Point until we get a better field.

41. *The Chairman.*] You get 50 per cent. more for your coal than the Westport Coal Company?—Our average is about 11s. a ton.

42. *Mr. Proud.*] How much do you waste?—Not more than 5 per cent.

43. How far do you expect to go in the borehole before you find another seam?—200 ft. below the present level.

44. *The Chairman.*] How far down have you gone in the bore now?—86 ft.

45. *Mr. Proud.*] You are exploring now?—Yes; new ground.

46. In the hope of striking some first-rate seams?—Yes; we want to equal the other mines. Our average is 2 ft. 6 in. in No. 6 seam; No. 5 seam averages 3 ft.; No. 1 seam averages 4 ft. We have 5 ft. at the face now, but I am giving the average.

47. Unfortunately your seams pinch out?—Yes.

48. *The Chairman.*] Are you satisfied with the prospect of coal you have for some years at the present rate?—We have no prospects at all unless this borehole shows us some.

49. Is the coal you have in sight very limited in quantity, then?—Yes; the No. 6 seam is running into stone going south.

50. What are you chiefly working in now?—The long-wall.

51. You are taking it all out as you go?—Yes.

52. Generally speaking, is there much coal in the pillars?—There is nothing left with us except No. 3 seam, with the standing pillars, since I have been here.

53. Have you touched a fault on the south?—There is a big fault about a chain south of the harbour shaft.

54. Have you done anything about it?—I have bored 416 ft. on the other side of it.

55. What have you struck?—2 ft. of coal.

56. Are you going to take the bore down any further?—No; we are far enough with it. We shall have to put down a new one.

57. Have you left anything between the old workings and the new undersea workings for safety?—60 yards.

58. Do you think that is sufficient?—Yes.

59. You are not going to touch that?—No.

60. *Mr. Proud.*] Will you work out the pillars under the sea?—We shall have to consult the Inspector before we touch the pillars at all.

61. You are not a great depth under the sea?—We have 300 ft. of cover.

62. That will require a great deal of consideration?—Yes; you will see it on the plan here. [Plan examined.]

MOSGIEL.

FRIDAY, 22ND MARCH, 1901.

JAMES SNEDDON examined.

1. *The Chairman.*] What is the name of the owners of this mine?—Nicol and Sneddon. I am one of the owners.

2. It is not a registered company?—No.

3. The property consists of what?—The property belongs to Alexander McGregor.

4. Is it freehold?—Yes. It is under trustees.

5. You lease how many acres?—We have a lease of about 400 acres. We have been working it for sixteen years.

6. Putting out about how much?—About 20 tons a day. Just now it runs to about 30 tons.

7. Where do you deliver it, or how much do you get for it at the pit-mouth?—There ar three kinds of coal: 5s. for steam-coal, 10s. 6d. for round coal, and 7s. for second-class household.

8. How many men have you employed underground?—Ten just now.

9. How do you pay them?—One man works on day-wages, and the others are paid by the box—1s. for big, 9d. for small, and 7d. for engine-coal. Four boxes go to the ton.

10. Do they have to do their own trucking for that?—They truck up to 4 chains for that.

11. And they are able to earn about how much per day?—9s. or 10s. a shift.

12. Have there ever been any accidents here of a serious nature?—Two men were hurt a little, and were off for a couple of weeks, but no bones were broken. That was six years ago.

13. How is the mine ventilated?—By natural means.

14. Where is the return airway?—The upcast shaft is close to the entrance.

15. What is the distance from the mine-mouth to the working-face?—About 12 chains.

16. Have you a plan of the workings?—Yes. [Produced.]
17. What is the average thickness of the seam?—About 12 ft.
18. Have you had any water to trouble you, or is the pump sufficient?—We have to pump in the night-time to keep the water down. We did not have to do that until the last four months.
19. *Mr. Proud.*] What proportion of the coal are you able to get out?—About one-fourth of it. That is the regular working-face. Then we shall come back and get as many of the pillars as we can get. We shall only be able to take out about one-third of the pillars.
20. *The Chairman.*] Have you had any trouble with the men?—Very little. Nothing more than the ordinary thing when working among men.
21. How many years' work have you before you?—As far as I can see, I think there is about five years' work in it at least.
22. What proportion of coal is there in the 400 acres?—About 200 acres.
23. Do you do any prospecting?—Not any surface-prospecting. We are driving out in places.
24. *Mr. Proud.*] What is the character of the coal in the old workings?—It is soft and unsaleable.
25. Is not three-fourths far too great to abandon?—It is a lot, of course. There is more left in the pillars than in the places.
26. What is the percentage of small coal?—3 tons of small to 1 of big.
27. Do you destroy most of the soft coal?—No; we sell it for engine purposes.
28. What percentage do you waste?—A sixth of what is mined. It is unsaleable and good for nothing.
29. That is 17 per cent?—Yes.
30. *The Chairman.*] Do you ever have fire?—We had in one place, where we had to close it off for a time.
31. *Mr. Proud.*] Did you shovel it out?—No; we let the water rise on it, and got under and worked up on it. The water put it out.

JUBILEE COLLIERY.

FRIDAY, 22ND MARCH, 1901.

JAMES LOUDON examined.

1. *The Chairman.*] You are the owner of the Jubilee Colliery?—Part owner.
2. Who is your partner?—Robert Howarth.
3. What is the area of the property?—113 acres freehold. We lease it from a John Howarth, who resides in America. He has an attorney here.
4. Do you pay royalty or rent?—A royalty of about 7d. a ton. We pay a fixed rent covered at 6d.; above that, 8d. It will stand as an average of about 7d. per ton.
5. How long have you been working?—It is about three years since we entered the market.
6. What is the thickness of the seam you are working?—There are three seams actually, and going towards the east they separated, but by the time we had opened into them they had come together, so that they formed a seam of 18 ft.
7. Where you are working it is practically one seam?—Yes, of 18 ft.
8. What are you able to take out?—8 ft. or 9 ft. in the first place, and we hope by-and-by to take down another 6 ft.
9. Are you intending to drive to a boundary?—No; we shall reach the boundary; but we are a long way from it, and I do not suppose I shall ever see it.
10. You are leaving the pillars?—Yes; and the roof-coal as well. We actually take out about half, but we hope to get another 6 ft. We take out 9 ft., and hope to get out 15 ft.
11. Have you plenty of coal?—Yes, I think so.
12. What is your output?—About 10,000 tons per annum.
13. What do you sell, on an average?—About 250 tons a week at present.
14. How many men have you employed?—Fourteen, above and below.
15. How many in the pit?—Underground twelve, including the driver, who is going in and out.
16. How do you pay them?—By the piece mostly.
17. How much a ton?—For round household coal, 4s.; for our best class of steam, which is also used occasionally for household, 3s.; and for steam-coal, 2s. 4d. Those are the hewing-rates.
18. Have you got the new air-shaft in?—No; the necessity is not so great as it was, but I intend to put it down. We have been making an improvement lately, which I wish the Inspector to see. I desire to open the mine further, in order to get a better place in which to sink the shaft.
19. What is the total output up to date?—About 20,000 tons for the two years.
20. Do you sell the coal yourself in town?—We sell it to dealers, and pay the freight to Dunedin.
21. What is the freight to Dunedin?—1s. 9d. per ton by railway.
22. How much do you sell it for in Dunedin?—By the truck, 12s. a ton for household; and for steam, 7s. 9d., also by the truck. For the medium class of coal, for which we pay 3s. to the miner, we get about 10s.
23. Have you had any accidents at all?—No. It is a very easily and simply worked affair. We have no trouble with water, as it runs out, and even the coal runs out.

FREEMAN'S COLLIERY.

FRIDAY, 22ND MARCH, 1901.

RICHARD GREEN examined.

1. *The Chairman.*] You are one of the owners of this colliery?—Yes.
2. Who are the others?—James Freeman, Charles Freeman, Frederick Freeman, and Robert Hill. Those are the whole of the owners.
3. What does the property consist of?—It is Mr. James Freeman's freehold of 1,000 acres.
4. You have mining rights over how many acres?—Over the whole of it; but one portion of it does not bear coal.
5. About how many acres are coal-bearing?—From 500 to 600 acres.
6. About how long have you been working it?—About thirty years altogether.
7. You have taken out about how much coal?—247,873 tons.
8. What is your present output per annum?—It is about 700 or 800 tons a month.
9. For the year 1900 you put out 8,604 tons?—Yes.
10. How many men do you employ?—The number varies. In the summer-time there are not so many employed as in the winter. We employ an average of twenty-two men all the year round. Under the Arbitration Act we now pay 9s. a day. We have no piecework, because our mine does not permit of it. The union demand is for so-many feet in thickness and breadth, and we have not got it.
11. What is the thickness of the seam?—It is 7 ft. where we are working, but it is 30 ft. and over in some parts.
12. Is there any scarcity of coal?—No. In the furthest part we have been there is 16 ft. thick of splendid coal. We are coming out and taking all we can get, and we propose shortly to open up where the good coal is. The present coal is nearly finished.
13. Have you got most of the coal out?—Yes. We lost one bit through a fire, but we shall get most of that now.
14. Have you a fire now?—Not a living fire. It is sealed off.
15. How is the ventilation?—Very good.
16. What is it?—It is natural ventilation.
17. Do you use steam-pipes for the ventilation?—No; that is for pumping. We have a steam-pipe going down the drive at the mine-entrance drawing the air from the downcast, and the ventilation is very good.
18. Have you had any accidents during the past two years?—We have never had an accident of any kind but one since we started, and that was where a man was lying down and holing underneath the coal, when a piece came down and broke his leg.
19. Is the mine wet?—Not where the workings are.
20. Do you have to pump?—Yes.
21. Is any portion of the mine under water?—No; but there is a place we call "the lodgment," where we keep the water in. It is called a drainage-sump.
22. Will you require a new plant to open up the new mine?—I do not think so. Our plant is in very good order.
23. Have you plenty of timber?—Any amount of it. We get the props from the Taieri Mouth, and the lathing from Southland.

WALTON PARK COLLIERY.

FRIDAY, 22ND MARCH, 1901.

JOHN KENYON examined.

1. *The Chairman.*] You are mining-manager of the Walton Park Colliery?—Yes.
2. How long have you been here?—A little over three years.
3. How long has the mine been opened?—Over thirty years.
4. Do you know what the property consists of in acres?—About 67 acres.
5. Is it freehold or leasehold?—Freehold.
6. What work are you doing now?—Robbing the pillars.
7. How far from the mine-mouth are you working now?—Close on from 18 to 20 chains. We are working back.
8. Is the roof coming in on you?—We let the roof down as we come back.
9. Are you troubled with the ventilation at all?—A little bit now and again. It depends upon the wind a great deal.
10. Have you a furnace?—Yes, at the bottom of the shaft; but we have two shafts.
11. Have you any gas in the mine?—No.
12. Have you any black damp?—A little black damp, and a good deal sometimes when a fall comes.
13. Has it had any serious effect upon the men?—No. I have withdrawn the men sometimes. They have had to go out of their own accord also; but I do not let them work when the damp shows.
14 Have you opened out all the new solid ground?—There is nothing left in the mine but the pillars, except a small bit.
15. How many years do you think you have before you?—Four or five years at the present rate of output.
16. What is the output?—From 10,000 to 12,000 tons a year.
17. Is there any area under water?—A large portion of the mine—most of it—has been lost through the water.

18. Was that before your time?—Yes.
19. The old company was liquidated, was it not?—Yes.
20. And the pumps ceased to work?—They knocked the pumps off, and the mine flooded.
21. Cannot they be regained?—I do not think they can get down again.
22. What proportion of the coal has been lost through that?—More than half of it. I believe it might go to two-thirds.
23. Do you know what the coal is worth at the pit-mouth?—Steam, 6s., generally, in the trucks; household, 12s. in the railway-truck. Say, from 6s. to 10s.
24. What do you pay the men?—11d. per box for the round coal, 6d. for engine-coal, 5d. for screenings, and 3d. for dross. Four boxes go to the ton.
25. Are you leaving all the dross in the mine?—We are leaving a portion of it.
26. What percentage?—You can hardly average it, as there is so much difference in the coal.
27. Is it not a source of danger?—Yes; the leaving of stuff behind is the cause of fires.
28. Have you any fire in the mine?—Yes.
29. What have you done with it?—Closed it off.
30. How many places have you sealed off?—We have put in some twenty-four or twenty-five stoppings to cut off the damp, and fires as well. There is no pumping done now. It is just about water-level, and has not gained any more for the last five or six weeks. It is about 78 ft. from the top of that shaft to the water-level, and during the last six weeks it has never risen at all.
31. Has the water any outlet at this level?—Yes, it must have; but I do not not know where it is.

ALFRED HOWORTH examined.

1. *The Chairman.*] Who are the owners of this property?—Mr. Alexander Patterson owns the property, but we are equal partners in the colliery business.
2. Do you pay him any royalty?—6d. and 4d., according to the class of coal.
3. How many men have you employed?—Eleven miners and two horse-drivers down below, and a roadman.
4. What wages do the men make at the contract prices?—Our wages to miners since we came under the award would run from £4 10s. to £7 a fortnight. Eleven days' work a fortnight is about the usual, except when public holidays reduce it.
5. Do they average four days a week at the lowest?—Yes; they would average about five days a week.
6. The prospects of the mine are not very good, are they?—There is only a limited amount of stuff ahead of us. The wages this pays run like this: Two men are drawing £11 16s. a fortnight, another man has £6 15s., and another £6 11s.; two men £11 1s. 6d., &c. If a man is working in solid coal he gets 1d. per box higher. The class of work varies.
7. Have you had any accidents in the mine?—One happened in the shaft about three years and a half ago. A man fell down the shaft and was killed. He was the engineer of the pumping machinery.
8. Since then have you had no serious accident?—No.

DUNEDIN.

FRIDAY, 22ND MARCH, 1901.

EDWIN RIDLEY GREEN, Inspector of Mines, re-examined.

1. *The Chairman.*] With regard to the inspection of the Allendale Mine, will you tell us when you last examined that mine?—On the 21st November.
2. Did you then go through the intake?—Yes.
3. Did you go into the working-faces of No. 2 level?—Yes.
4. You report that the ventilation is very fair. [Departmental report referred to]?—That is Mr. Hayes's report. I did not see the Allendale Mine in 1899.
5. Then, there is no report by you published?—No; I was only two months in office then.
6. What state did you find the intake in when you visited it?—It was in a very fair state then.
7. As to height?—The seam is low.
8. Has the bottom come up?—Yes, very much. I should say, 18 in. up.
9. What about the timber that was in it then?—The timber was all right then. It was quite new in November.
10. What state do you consider it in now?—In a very dilapidated state. There is evidence of a creep there. The bottom is rising rapidly, and the timber is all broken.
11. How can you account for the difference in four months' time?—They have been taking the pillars out. That portion of the airway is in the old mine-workings, and they are taking the pillars out between the new mine-workings and the old mine-workings. The result is evident—it is visible. It has brought a weight down on this airway. It was an old dip, I understand, cleaned out and turned into an airway. The airway prior to that was the circular airway, and I objected to the length of it, and asked them if they could not improve the air, and they said they could do so by opening up the old dip. That was before November. The circular airway was then good. It was not very long, and the men travelled it at that time. The new airway which has been opened up is going to pieces, and in a very short time, unless it receives attention, they will not have any airway at all.
12. You visited it in our company on the 21st March?—Yes.
13. What state did you find the ventilation in?—It was very bad—exceedingly bad in two places.

14. And the mine generally?—The air was not directed generally in the body of the workings. I found the air in several places we were in going about at its own will, and consequently some of the places were not getting any air.

15. What is that in consequence of?—Not being conducted by brattice.

16. Is there evidence of sufficient timber being used, or the contrary?—In places there is sufficient, but in other places there is not. The roof is very ragged, and places are not timbered where timber should be put in.

17. What do you propose to do in regard to Allendale?—I shall certainly report on it at the first opportunity to the department. I shall write to the mine-manager and draw his attention to the state of certain things in the mine, and insist upon a better state of things being brought about. I shall take steps to have the deficiencies remedied at once.

18. As to the timber used in the mine, what do you think about that?—There is sufficient timber in certain places in the mine-workings, seeing that the roof is such a bad one.

19. Did you notice any evidence of timber having fallen, and the roof having fallen also?—Going through that stone drive in the return airway there is a very bad place.

20. What do you think of the haulage-road and incline?—The haulage-road has very much deteriorated since my last visit. Timber has fallen that should have been taken out, and at the mouth of the mine it is in a very bad state. They have renewed an amount of timber, but have not put it in a proper state. The roof is very ragged.

21. Does that constitute an element of danger to the mine?—Yes; but strange to say the mine is free from accidents.

22. Did a similar state of things exist last November?—No.

23. Was the ventilation better last November?—Yes.

24. Did you request the mine-manager to do anything with regard to the ventilation?—Not in November. I did during the prior visit—that is, on the 11th May, 1900. I wrote to the manager about the air in the north level, and conferred with him about the airway being long and circuitous, and small in area. He told me that he would make a new and straight airway from the old mine-workings.

25. Did he do so?—Yes.

26. Which side?—The one the Commissioners went through on Thursday last is the new airway.

27. And if that airway were cleaned out would there be sufficient ventilation in the working-faces?—Yes; cleaned out and retimbered. There was more air than is required by the Act going down it yesterday.

28. What do you say about the trucking-roads?—They are very wet and dirty in places.

29. Are they worse than they were in November?—No, not so bad. The new horse-road that we travelled through is in a much better state now than formerly when the men trucked through it.

30. It must have been very bad before?—It was indeed.

31. Did you request the mine-manager to improve it?—In conversation with him he told me that it was his immediate intention to renew the timber, and make a horse-road of it. That has been done.

32. Now take those roads where the lads are trucking: what state are they in?—Some are sloppy and dirty.

33. Are they in a fit state?—No; they are dirty.

34. Are they better or worse than they were in November?—The roads are worse.

35. Are they better or worse than they were in May?—I do not think they were there at all in May. They were opening up then.

36. Is there any danger from black damp there?—There must be damp leaking in the old workings and the present workings from the method adopted of taking the current through the old workings.

37. Is the current flowing right through the mine?—It must flow through the mine.

38. It is alleged that the currents baffle or meet, and that the black damp is held between them: is that complaint well founded?—I cannot say as to that. Yesterday I found that there was no record of air on my instrument in the new seam on the north level, in which twelve men work. I could not get a record on my animometer which denotes that it was baffling.

39. Would it be putting it too strongly to say it denoted that it was an unfit place for men to work in?—Yes.

40. Would it be dangerous to the men's health or life?—Yes; it was very close and warm, and injurious to men's health, but I would not say to life.

41. I understood that there was some work on the air-shaft, I believe, which was promised to be put in some time ago?—Yes; Mr. McIntosh promised me that.

42. Why did he promise you that?—In consequence of my referring to the unsatisfactory state of the air, and the manner in which the air was conducted into the mine through the old workings. I drew his attention to that. I said the air should be taken through the new drive, and the upcast should be taken through the old workings. He said he could not reverse the current owing to the steam-pipes being in the main drive, but that he would sink a new shaft.

43. When was this?—It was either in May or November, and I think it was on both occasions. In particular, it was when I spoke to him about the airway being circuitous. It must have been last May.

44. Has anything been done about it?—Not so far as I know.

45. Does he explain why not?—No. I spoke to him about it yesterday, and he said again that it was proposed to be done.

46. The Commissioners wish to ask you now, generally, if you can give them any further information with regard to this mine, or whether you wish to make any statement about it?—I cannot think of anything now that I wish to add.

47. *Mr. Lomas.*] Do you consider the method of ventilation which allows the air to blow in at one drive at one time in the intake, and in the outlet at another time, without some artificial means of ventilating the mine, is a satisfactory one?—Certainly not; but I have never seen it. The heated steam-pipes in the main drive have always made it the upcast, as far as I am aware.

48. Did you not hear Mr. McIntosh say that the air went in sometimes at one end, and sometimes at another?—He referred to the wind baffling, and that is a state that should not be allowed to exist.

49. *Mr. Proud.*] Which way would you increase the power to draw the air in the upcast so that the air would not reverse?—It would be very difficult to increase it. I would recommend them to sink their shaft or use a fan.

50. *Mr. Lomas.*] Would it not be possible to erect a chimney in the mouth of the shaft and have a fire, and simply shut off the drive with a door, and open it when a race was going through?—Yes, certainly, that is feasible.

51. *The Chairman.*] Now with regard to Shag Point: I suppose you inspected that mine in November?—Yes, on the 20th November.

52. Was the mine in good order yesterday?—Yes, very fair order.

53. Have you made any requests to the manager?—Yes; for air in Klausen's level. There was a shortage of air there, and also a shortage of air in No. 5 seam, long-wall workings, owing to the filling or stowing being thrown by the men too close up to the face at the bottom. The airway at the bottom of each man's face was contracted, and I requested them to enlarge the area of the airway at the faces.

54. Have they complied with your request?—Mr. Shore wrote me a few days after to say that it had been complied with; and shortly after that I found that the seam was abandoned up to the boundary.

55. Did you ask anything about the grips on the lowering-cage?—Yes.

56. Were they necessary for safety?—Yes.

57. Has he put them on?—Not yet.

58. When was it you asked him to do it?—After my last visit in November.

59. Are you going to take any steps in regard to that?—Yes, I must.

60. He told us that the mine was falling; that the present mine was nearly worked out; and that they would have to depend upon the result of the bores being made?—Yes, that is my opinion.

61. Did you know of any cages working without grips?—Yes; at the Lovell's Flat Mine. Mr. Shore is supervising manager for both mines.

62. You accompanied the Commissioners to-day to the Mosgiel, Walton Park, Jubilee, and Freeman's Mines?—Yes.

63. The Mosgiel Mine is a very small one?—Yes; all the mines in that district are small mines.

64. Is there plenty of coal there?—I think so. The prospects are very favourable. They cannot tell what there is to the dip.

65. Are the air and timber both satisfactory?—Yes.

66. Now take the Jubilee Mine: did you find that in proper order?—Yes.

67. Have you had to complain of it at all?—The last occasion I was there I found the air baffling.

68. Has anything been done to alter that?—No. The ventilation is natural, and there was splendid air to-day.

69. *Mr. Proud.*] Do you not think it should be compulsory that all these mines should be ventilated by a fan?—They are small mines, and the owners are working-men, and, generally speaking, the air is good.

70. *Mr. Lomas.*] How do you account for the air being better to-day than when you visited it before?—The atmospheric conditions were more favourable to-day. Good wooden stoppings have been put in all the stentons, which have had the effect of carrying the air to the working-faces.

71. Have you always found the mine as well timbered as we found it to-day?—Yes; it is a splendidly timbered mine.

72. Have you found the management generally satisfactory?—Yes.

73. *The Chairman.*] Now with regard to the Walton Park Mine—Howorth's mine: that is pretty well exhausted, is it not?—Yes; they are working on the outcrop, and there is a very large amount of coal being left behind.

74. Is the method of working satisfactory from the point of view of safety?—Yes; they are very careful. There have been no accidents.

75. Is the air good?—There was a large excess of air always circulating at any time I visited the mine, and it is necessary, owing to the large quantity of black damp given off by the old workings which surround the present pillars being taken out.

76. Is the ventilation sufficient to provide for the safety of the men?—Yes.

77. And you say the mine is pretty well exhausted?—Yes; they are working very near the outcrop.

78. Now come to Freeman's mine: is that in a satisfactory condition?—Yes; it is a pretty safe mine. The airways are rather low near where the pillars are being split, owing to the bottom heaving.

79. Have you considered carefully the provisions of sections 48 to 50 in the Coal-mines Act, referring to the powers of the Inspector? Have you considered whether you are armed with sufficient powers under the Act?—Yes; I do think the Act gives me sufficient power.

80. Do you find any more difficulty in dealing with coal-mines upon freeholds than you do with coal-mines upon Crown leaseholds?—No.

81. You find that you have sufficient power to enforce compliance with the Act in the one case equally with the other?—I have always had improvements effected when I asked for them.

82. Do you find that persons mining upon freeholds are more difficult to deal with than persons mining on Crown leaseholds?—Yes; they are more independent.

83. Do you find it is more difficult to get the freeholder to comply with your requests than it is to get the leaseholder to do so?—I have no reason to complain of the way in which the freeholder complies with my requirements as a general rule, but I find they are more independent in their attitude towards me than the leaseholder.

84. Do you interfere with a leaseholder as to the method of mining adopted as regards taking or leaving quantities of coal in the mine?—Yes; and advise him.

85. Do you interfere with the freeholder on the same subject?—No; not otherwise than by conferring with him on the subject.

86. You think you have no control over the freeholder in leaving as many tons as he likes in the mine?—No.

87. As regards the freeholder, generally speaking, you confine your control to the safety of human life?—Yes.

88. And do not go beyond that?—Except to confer with them as to their methods of working.

89. You are always willing to confer with mine-managers?—Yes; and I find that they are always willing to confer with me.

90. *Mr. Proud.*] Would it be well to adopt some of the provisions of the English Coal-mines Regulations Act of 1896?—I have the Act at home, but I confess I am not familiar with it at present.

91. *Mr. Lomas.*] What is the condition of the mines generally in your district that we have visited?—Generally they are in a favourable condition.

92. Have you always found the Lovell's Flat Mine in a good condition as to ventilation and safety?—Yes.

93. Is the area of the workings at all extended or limited?—Somewhat limited. It is practically a new mine, and not a very great deal has been done in it. The output to the end of 1899 was only 19,000 tons.

94. Would the crush in the mines you have to contend with not be prevented by making the pillars larger?—In the mine you visited to-day—Freeman's—the pillars were left 1 chain square and the roads 6 ft. wide, and often the bottom rose in this district. The pavement is soft, and if there is any water about it is exceedingly soft, and the pillars sink very rapidly.

95. Is it a fact that in that mine it is not possible, even with a big pillar, to drive a wide bord?—Yes.

MONDAY, 25TH MARCH, 1901.

WILLIAM PROUDFOOT WATSON examined.

1. *The Chairman.*] You are general manager of the New Zealand Coal and Oil Company?—Yes.

2. It used to be known as the Kaitangata Railway and Coal Company?—Yes.

3. Owning the Kaitangata, Castle Hill, Orepuki, and Elliotvale Mines?—Yes.

4. The capital of the company is how much?—£180,000.

5. Any debentures?—£70,000.

6. What is the paid-up capital?—It is all paid up.

7. You have expended how much?—We have spent £87,000 at Orepuki up to the present moment, chiefly in opening the mine and providing the machinery.

8. The mine at Orepuki is chiefly opened for shale?—Yes. We do not consider the coal as a source of income, but the coal is a valuable acquisition for our own requirements.

9. You expect to put out oil?—We have started to put it out. We hope to be selling 2,000 gallons a day almost immediately. We hope to have the finished product ready by the end of April, and the crude should be ready in a fortnight.

10. You are employing about how many hands?—At Orepuki about a hundred and thirty, and about three hundred at Kaitangata.

11. I suppose the number at Orepuki will decrease when you have finished your works?—The work will be pretty well automatic, it is thought, on the surface. The last return to the Government gave the number at three hundred altogether for Kaitangata and Castle Hill. In taking the 6d. duty off kerosene the Government have greatly handicapped the company. They have also reduced the duty on wax from 1½d. to ¾d. They offered £5,000 as a bonus for the first 100,000 gallons of oil produced by the 30th June next. We have applied for an extension of the time. I may mention it is understood that the Government are going to give us a bounty on the wax and the oil, but nothing of a definite character has been arrived at yet.

12. What is the price of kerosene?—8d. to 9d. in orders of considerable cases. We thought that, selling our oil at 10d., we should be able to command the market, with the assistance of the duty.

13. How long have you been connected with Kaitangata?—Since 1877—twenty-four years.

14. Have you been manager all that time?—I have been manager since 1879. There was a secretary for the previous two years, and I was salesman.

15. Can you tell us shortly the history of the company?—The Kaitangata Railway and Coal Company (Limited) was established and registered in April, 1875. It went under that proprietary until the 1st July, 1898, when its name was changed to the New Zealand Collieries Railway and Oil Syndicate. On the 1st February, 1900, it was remodelled for the purpose of finding capital for the shale, and was then and now is called the New Zealand Coal and Oil Company (Limited), with a capital of £180,000.

16. Have you anything to recommend to us with regard to the working of the Coal-mines Act and the inspection of mines?—I do not think there is anything I can say except that I should like to hear of the Inspector being as frequent as possible in his inspection, because it is a relief to the management in a mine like ours, which is liable to spontaneous combustion, to have the advice of the Government Inspector. We are the better of all the advice we can get. I might say that there has always been a very good feeling existing between the Inspectors and my company since I have had anything to do with it.

17. Has the company paid any dividend?—We had a dividend for the syndicate, but the last balance-sheet has only just gone Home.

18. Was there a profit last year?—Yes, a fair profit on the coal—about £10,000 for thirteen months on the Kaitangata properties. The balance-sheet was posted Home by the last mail.

19. In previous years what have been the dividends?—They have run from 10 to 25 per cent. The average dividend was 15 per cent. for some years, and in all those cases we gave a bonus to the men, amounting to £500 and £600 a year, for several years. The year of the strike we gave £900, given in the shape of 1s. per ton extra while the strike lasted.

20. You seem to have got on very well with your men until this wretched picnic?—We never had a ripple with the men until a change came in the proprietary. We have new directors, and when the application came from the secretary at Kaitangata for assistance towards the Picnic Fund the directors did not fell justified in voting £50 in that way, as so much had been spent in new works.

21. How long did the £500 or £600 a year bonus last?—Five or six years, I think.

22. When was the last bonus paid?—From memory, I think it would be 1897.

23. In answer to your refusal the miners practically said, "Never mind your £50, we are going to have the picnic"?—Yes. The only knowledge we had that they were going to hold the picnic was an invitation given to Mr. Broome to attend. Mr. Broome telephoned to me about it, and, as the races were coming on the following week, I saw we should be short of trucks. I gave Mr. Broome some correspondence on this subject from the Railway Department, we having had a letter from the railway people complaining about the wagons lying there idle until the Monday. We would rather have helped them with the picnic than otherwise. The secretary has written to the mine-manager to take the four men discharged back again, and they will be taken back; but it is considered necessary under the circumstances that they should meet the directors first, so that they will understand for the future the policy the company wish to follow. It is a very large company and you must have discipline. All the directors are desirous of seeing this friction stopped.

24. How long have those four men been out of employment?—Since the 22nd February.

25. Do you not think you acted rather harshly in dismissing these four men, who were no more to blame probably than the rest?—No. We know the four men, and two of them are very arrogant. They are people who lay off work whenever they please; they are not like the rest of the men. I tell you frankly that if we had to do the same thing over again we would do it. It was done with the advice of the board of directors after due deliberation.

26. *Mr. Proud.*] What is the quantity of coal you waste?—There is an average of 30 or 40 tons a day.

27. Will you not get an adhesive material from the works to enable you to utilise that waste?—We hope so. We have samples of briquettes, and we hope that before the year is out that will be a valuable branch of our works. We have briquettes made from the refuse of the Orepuki shale, and they were made by hand without any hydraulic plant. We are looking forward to making some profit from that source.

28. What quantity do you expect to make?—It might be 30, 40, or 50 tons a day. It would not exceed 40 tons for some considerable time.

29. Do you think the loss of coal in working, distribution, and combustion could be considerably reduced?—We are just hoping to save the dust by it. We could not say anything further in reference to what are called the nuts and peas.

30. Could you not improve your cleaning and sorting appliances?—I do not think so. We cannot sell the dust at present, and we could not save any more than we really do.

31. You will have the coalfield developed so that there will be a large output for some time to come?—We hope so.

32. And you have every prospect of disposing of it?—Yes. Two opposition mines have been started, and, of course, we do not know how they will affect us.

33. *The Chairman.*] How do you hold the Kaitangata property?—Under a leasehold of 1,100 acres from Mr. William Aitchison, the freeholder. It is private property.

34. And Castle Hill?—That is 858 acres of our own freehold. Orepuki is a Government lease of 1,250 acres, and Elliotvale is our own freehold of 2,800 acres. We paid £10,000 for the last-named property in 1881.

35. Does it contain good coal?—Beautiful coal, of the same character as Kaitangata. That is, so far, untouched.

36. Where do you sell your coal?—At Stirling, and deliver it there.

37. What is the price?—The top price for household is 14s. per ton, but it goes down to 11s. The nuts are 7s. 9d., and the peas 2s. 6d. The dust is the next quality, and that is thrown away. The bulk of our household coal is sold at 12s. 6d. a ton.

38. Has that always been the price during the last few years?—That price has been fairly maintained for the last fifteen years.

GEORGE JOACHIM examined.

1. *The Chairman.*] You are general manager of the Westport Colliery Company (Limited)?—Yes.

2. Do you remember when the company was incorporated?—In 1882, I think.

3. With a capital of what?—A nominal capital of £400,000 in 80,000 shares of £5 each, of which 69,000 shares have been issued, leaving 11,000 unallotted.

4. How much has been actually paid in cash?—On the 69,000 shares £3 10s. per share has been called up and paid. Then, 10s. per share has been written off for losses, leaving now £3 per share to the credit of the Capital Account, or equal to £207,000.

5. But more than that has been expended?—There are debentures equal to £65,000 owing, and other liabilities equal to about £40,000.

6. The whole of that capital has been expended upon works and in developing the mine?—Yes. I have here a table of the expenditure from the commencement—the total expenditure under certain heads: Wages, £960,690; royalty, railway haulage, rates, and taxes, £510,992; freight to local carriers, £708,413; stores, £86,397; works and plant, £54,747; repairs and sundries, £23,214: making a total of £2,344,453. The company's leases at Westport comprise 5,430 acres. The output in 1900 was 368,334 tons; in 1899, 327,015 tons: total output, 3,245,107 tons. The company has paid the following dividends: 1887, 2½ per cent.; 1888, 5 per cent.; 1889, 6 per cent.; 1890, nil; 1891, 7½ per cent.; 1892, 7½ per cent.; 1893, 7½ per cent.; 1894, 6 per cent.; 1895, 6 per cent.; 1896, 6 per cent.; 1897, 6½ per cent.; 1898, 7 per cent.; 1899, 7½ per cent.; 1900, 8 per cent. From 1882 to 1887 no dividend was paid. The dividends equal 4½ per cent. right through from 1882.

7. Are you prepared to say anything with regard to the prospects of the company and the output of coal being maintained?—I think for the present, and for the next twenty or twenty-five years, the present output can be maintained, and I hope it can be increased considerably.

8. Has the area of coal in the company's leases been accurately ascertained?—I cannot say that. We have found enormous disturbances in the field, and cannot rely on any area of coal unless we have put our drives through it.

9. Have explorations been carried out in a thoroughly exhaustive manner?—Yes, as far as we can go at present, and what would be considered sufficient in an English sense; but our experience goes to prove that you cannot rely on any area unless you put your drives right through, the place is so disturbed.

10. Numerous bores have been put down to the coal?—Yes, that is the case; but that does not prove that the coal between any two boreholes is continuous.

11. But the outcrops have been carefully explored and the area clearly defined?—Yes; but you may drive a little into your outcrop and find your coal lost.

12. This is an official publication [*New Zealand Mines Record*, Vol. 4, No. 3, produced]. Can you say by whom the information here in in reference to the company was supplied?—I think the principal part of it was supplied by our manager; but sad and bitter experience compel us to qualify the statements made there.

13. Which manager do you refer to?—I think that was supplied by our late district manager, Mr. Thomas Brown; but I could not say how far his memo. is reproduced there.

14. How long has the Granity Creek Mine been at work?—Five years. The output began in June, 1896.

15. What do you think of the estimates given by the geologists in the earlier days, reaching up to 214,000,000 tons for the Buller coalfields?—Really I am not qualified to say; but I do not think there is the quantity of coal in our leases that I thought in the beginning, large though it may be. We find that the more we prove the field the more we see the uncertainties of it. To give you an instance, we have recently spent about £11,000 in crossing a fault, and we had to drive nearly 40 chains before we got into the coal again. We all thought the coal was continuous.

16. Do you care to say anything about the prospects of the area known as Mine Creek?—That appears to me to be the most settled piece of ground in our lease.

17. Do you know what has been done with regard to opening that area?—We have provided what appliances are necessary there for a large output, and that will be our main field at Granity for some years to come.

18. Were you over it?—Yes.

19. Did you go into it?—Yes.

20. How far have they driven?—About 4 chains, and there are about thirty places working.

21. Have they got bores down ahead of them?—No; they have passed all the bores now.

22. Do you think they know what is ahead of them?—Only what they can see at the outcrops and the settled look of the ground on the surface; but I may say that with all our leases we do not know positively that the ground contains coal until we put our drives right through them.

23. Do you know the dip workings in the Granity Creek?—Yes.

24. They have been worked rather extensively, have they not?—Yes.

25. Do you know why that is not exhausted—why they are not driving to the boundary?—They are as fast as they can—as well as the faults will allow them.

26. Where do you reckon your selling-price at?—I think the best place to reckon it is at the pit's mouth, in the trucks, because all the other charges are charges over which we have no control—say, at the foot of the incline in our case. The prices vary very much. The average price of the whole output last year was, free on board at Westport, 10s. 10d. per ton. That includes everything brought out of the mine.

27. You do not waste any slack, do you?—No; we sell everything. If you take off the cost for railway haulage and royalty, which amounts to 3s., it leaves a net price at the pit's mouth of 7s. 10d. per ton, and that is what we got for the whole of our output last year; that was the average of the whole output. Some part of the output realises more and some considerably less. About 20 per cent. of this total output only is fit for screened or household coal, so that only 1 ton out of 5 of the output can be sold as screened coal. In other words, 1 ton of screened coal realises at the pit's mouth 14s., and 4 tons of unscreened and small coal realises 6s. 3d. a ton, which makes the average price for all coal at the pit's mouth 7s. 10d., or 10s. 10d. f.o.b., Westport. The price realised for the coal has been completely misunderstood by the public. I have seen it represented that, our coal being 10s. 10d. f.o.b. at Westport, the same coal is sold at Wellington at £1 2s. 6d., and, the freight being only 5s. 6d., that price must leave us a large profit. That is quite incorrect. The price of £1 2s. 6d. at Wellington is for screened coal only.

28. Who gets that coal?—The trade. To get that screened coal we have to pick over the whole output, and we can only then get 20 per cent. of the total output for the purpose. The remainder has to be sold at a much-reduced rate, the small coal often being as low as 4s. 6d. at the pit's mouth. Therefore, taking the high price realised for the screened coal with the much lower prices for the other sorts, the average of the whole output only nets, as I said, 10s. 10d. f.o.b., Westport, or 7s. 10d. per ton at the pit's mouth.

29. The trade get the screened coal at a little less, do they not?—We charge £1 2s. 6d., less 2½ per cent.

30. How can a dealer who pays £1 2s. 6d. for screened coal reasonably charge £1 16s. per ton delivered in Wellington?—The dealers must answer that question. I only know we have a yard in Wellington, where we trade as an independent customer, and charge £1 2s. 6d. to that yard, and sell it at the same price retail as the trade do.

31. Why has the coal risen during the last few months to £2 a ton?—I do not think our price is that. We have only raised our price 1s. during the last twelve months. We raised our price to the Westport Harbour Board because they had been getting our coal for very much less than others for some time, and I put it up, and they ceased to take our coal then.

32. A year ago one could buy Westport coal in Wellington at a nominal price of £1 16s. a ton, with a discount of 2s. for cash, and when I left Wellington we had to pay £2 a ton: can you explain that?—No, I cannot.

33. Has the company raised the price?—The company's price is £1 2s. 6d., *plus* wharfage.

34. How long has that been the price?—Six months ago it was raised 1s. I am speaking, of course, of screened coal.

35. Did you raise the price of other coal to dealers?—No; they do not take unscreened coal. We could sell unscreened coal at 18s. 6d. a ton at Wellington, and I do not see why people should not burn that coal. Of course, the dealers say, in reference to the coal they purchase from the company, "We have to take this coal into our yards, rescreen it, bag it, and deliver it in small quantities; and we have to sell the slack at a much less price than we have to pay you for it."

36. *Mr. Lomas.*] Do you know why your coal is retailed in Auckland at £1 11s. from the yards—screened coal?—I suppose they have a cheaper means of getting it there; and the cartage must be cheaper. I could not tell you the reason.

37. *Mr. Proud.*] What is your retail price in Wellington?—I could not tell you. It is the same as the dealers charge—that is to say, the dealers have a published tariff.

38. And you sell it at the same price as the dealers?—Yes.

39. *The Chairman.*] These were the Auckland prices in January last: Coalbrookdale, at the yard, £1 8s.; delivered, £1 11s.: Taupiri, steam, 9s.; household, £1 2s. at the yard, £1 6s. delivered?—Yes, that may be so.

40. *Mr. Proud.*] Why is there such a difference in price between Wellington and Auckland, seeing that the freight should be higher in the case of Auckland on account of the distance?—I cannot tell.

41. *The Chairman.*] What is the retail price in Dunedin?—£2.

42. Has it been raised recently?—Since the 1st January. It was £1 17s. per ton before. We get £1 4s. 6d. for it in Dunedin at the ship's side. Then the purchaser has to pay 3s. wharfage.

43. *Mr. Lomas.*] What is the price in Lyttelton?—£1 5s. 6d., I think, and £1 8s.; but we work on a different principle there—we screen the coal at Lyttelton. We get £1 8s. for coal screened on the spot. Then, the purchasers have to pay the railage to town—3s. 6d. per ton.

44. Does the local production affect the price of your coal?—It did until the recent scarcity. At present we are getting the same prices all over the colony, with the difference of freights.

45. *The Chairman.*] What is the price in Auckland at the ship's side?—£1 4s. if in large cargoes, £1 7s. in small. We sell very little screened coal in Auckland. It is principally for steam and gas.

46. Would you sell a ton of coal to a private individual?—I do not know that we could make arrangements for that.

47. The statement is made that you will not sell to private individuals?—That is not the case as far as I know. The difficulty has been with the delivery. We are not prepared to deliver a ton of coal wherever it was wanted.

48. Have you any preferred customers?—No. The custom in Wellington is that when a steamer comes round notice is given to all the coal-buyers to send their carts, and they are supplied in turn as the vessel is discharged.

49. Who pays the Union Company?—We pay the Union Company the freight. We have our own manager in Christchurch.

50. Who do the dealers pay in Auckland, Dunedin, and Lyttelton?—Our company.

51. And you pay the Union Company freight?—Yes.

52. Supposing a ship goes to Westport or Greymouth not belonging to the Union Company, can it get a load of coal?—Yes. They take their turn after arrival.

53. There is no preference shown?—No.

54. Is any preference shown to steamers or sailers?—If both class of vessels arrive the same day the sailer will have to stand aside. In point of fact, the sailers do not get so promptly loaded as the steamers, because they come for a particular kind of coal, and they have to wait until that particular kind of coal can be produced.

55. Is there any further explanation you would like to make with regard to the sale and alleged preference?—There is absolutely no preference given whatever. We sell to all vessels coming—that is, if we have the coal to sell. If a vessel came in to-morrow and wanted coal, and I had orders booked for six weeks ahead, of course she could not get it.

56. Do the Union Company buy any coal from you except their bunker coal? Do they trade in coal?—No, not within New Zealand.

57. A statement has been made that if a vessel comes to Greymouth and wants a load of coal she has to wait and give way to Union Company's steamers?—We have nothing to do with Greymouth. Westport is our only place.

58. Well, at Westport you company can say, "We cannot give you any coal; we have contracted with the Union Company, or with people at Lyttelton, and we must supply them before we supply you"?—As far as the Union Company is concerned, that is not correct. We have no contract with them except a fixed rate of freight at which they carry for us from port to port, and a contract to supply the Shaw, Savill, and Albion Company. I know there have been times when a steamer could not get coal, but that was because the whole output has been arranged for.

59. Who is it arranged with?—Myself with the different customers. I get my orders in from the branches as to what they want and arrange for steamers accordingly; and I get orders from outsiders booked.

60. You can always block an unwelcome customer by saying you have contracted to supply people elsewhere?—I am not prepared to block any one if he can give us the price we want for our coal. The only case in which it can happen is where we have promised the coal before. We have now large arrangements with the Admiralty in connection with the Duke of York's visit, and I could not push that contract aside to please somebody else.

61. *Mr. Lomas.*] If another party treated with you he would get the same facility?—Yes. To keep a large business like this going you must have large contracts. The whole prosperity of the mines depends upon keeping them regularly going.

62. *Mr. Proud.*] It must make a great difference to you if you lose a day's work?—Yes; knocks off the profit of a fortnight. We must make arrangements ahead for the coal.

63. *The Chairman.*] Has the Union Company any controlling interest in the Westport Coal Company?—None whatever—absolutely none. There is simply a business arrangement between us as to a fixed rate of freight to the various ports and a fixed price for the coal we supply for their use, and an arrangement for steamers as required by our company from week to week.

64. *Mr. Proud.*] Do you ever charter any other company's steamers?—Yes; we have a steamer now under charter. We are now employing steamers from the Union Steamship Company, the Wellington Steam Packet Company, the Anchor Line Company, and Levin and Co.; and we have under charter the steamship "Gertie" constantly running for us, with occasional loading for other outside steamers.

65. And you only employ the Union Company's steamers if the freights are low, or as low as any one else's?—We employ Union Company steamers for ports where we can get regular orders. The Union Company never run vessels to Wanganui, Napier, Foxton, and Picton for us.

66. When outsiders want a load of coal is it usual for them to communicate with you at Dunedin, or would it be safe for them to go to Westport to get a cargo?—They must follow the custom and communicate with me. It would be impossible to conduct the business if they were to load vessels going there when I had made arrangements for other steamers to get cargoes.

67. *The Chairman.*] Will you tell us what the Westport Coal Company acquired in connection with the Greymouth properties?—We had a lease of the Wallsend Colliery.

68. When did you acquire that?—At the formation of the Westport Coal Company—that is, in 1882. A clause in the lease provided that we should be allowed to purchase 150 acres of freehold at £5 per acre.

69. From whom did you get the lease?—From the Government the previous owners obtained it. We availed ourselves of that clause and bought the 150 acres. Afterwards we amalgamated with the proprietors of the Brunner Mine. The Wallsend Mine belonging to the Westport Coal Company and the Brunner Mine belonging to Mr. Martin Kennedy, we amalgamated the two concerns under a separate company called the Greymouth Coal Company. I believe the Coal-pit Heath Mine was afterwards purchased.

70. What proportion did the Grey Valley Coal Company hold?—They held a half-share, Mr. Martin Kennedy held one-fourth, and the Union Steamship Company held one-fourth.

71. The Westport Coal Company paid for one-half, I suppose?—Yes.

72. How much did they contribute?—I could not tell you. The capital had all been spent before the amalgamation. The properties were all put together. The Westport Company's was reckoned as one-half, and ultimately we got Mr. Kennedy's quarter and the Union Company's quarter.

73. How did the company get Wallsend?—It was purchased from them from the previous owners.

74. How much did the company spend on it?—About £80,000.

75. And after the amalgamation what did the company spend?—I do not think we spent any money on it after the amalgamation. Our mines were working then and were fully equipped. The reason for closing the Wallsend Mine was that the quality was inferior to the Brunner, and the coal was cut off by faults on all sides. We found we could supply all the demands made upon us from the Brunner Mine, and therefore we closed the Wallsend Mine.

76. You not only closed it, but you dismantled it?—Yes; we sold all the machinery after we had received the opinion of our own managers that the mine could not be made to pay on account of the faulty nature of the ground and the inferior quality of the coal.

77. And what about the Coal-pit Heath Mine?—We were working that and got drowned out. They were drawing the pillars when the surface cracked and let the water in. That is my recollection of it.

78. What did the Westport Coal Company lose over the Wallsend Mine?—We lost the money we put into it—that is, £80,000.

79. *Mr. Lomas.*] Did you lose anything on the actual working of the mine when drawing the coal out of it?—I could not tell you. We had got to this point: that we must either spend an enormous sum of money on it by putting stone drives through the faults or else abandon the mine. The opinion of our managers was that they did not think we were justified in continuing the work.

80. *The Chairman.*] Was not this the position: The Westport Coal Company had to reconstruct and get more capital, the Wallsend Company being at the time a separate institution altogether. When the Westport Company was formed, was it not made part of an arrangement that the Wallsend Company should be amalgamated with the Westport Company?—Yes; it appeared in the prospectus. We were to give them £20,000 in shares in the new company.

81. Then, do you say the new company spent £60,000 in working the mine and lost it?—Yes; in sinking the shaft and equipping it.

82. *Mr. Proud.*] Was there not a profit on the working of the coal at Wallsend?—I really could not tell you; but my impression is that it was only paying expenses, and nothing more. The money was really spent in opening and equipping the mine.

83. Was not the quality of the coal equal to any other in the district?—No; it was not equal to the Brunner or Coal-Pit Heath coal. It might sell now when there is a bigger demand, but it was difficult to get rid of then.

84. It was as good a gas-coal, I understand, as you could find anywhere?—I do not say it was not a good coal, but it was not so saleable as the Brunner or Coal-pit Heath coal.

85. In those times you had not proper screening- and sorting-machines for preparing the coal for market?—We had the usual machines for screening the coal as we had at Denniston then; but, of course, we have very much improved machinery at Denniston since then.

86. *The Chairman.*] Will you tell us about the trial shipment of coal sent from Wallsend or Coal-pit Heath to Melbourne or Sydney?—It did not pay. The coal was a mixture of Coal-pit Heath and Wallsend, as far as I can remember.

87. *Mr. Lomas.*] Was it the best of the Wallsend coal?—It was a carefully selected cargo.

88. *The Chairman.*] It has been alleged that it was the worst that could be got?—No; that is not so. We were anxious to send the best, as we thought we might be able to get a cut into the trade with the Melbourne Gas Company.

89. Did the company sell the Wallsend Mine?—Yes, at auction the other day.

90. Shortly after you closed it did you make an attempt to sell it?—Yes.

91. It has been alleged that Mr. Wills attempted to negotiate with you or your manager for it when he was acting on behalf of other miners, and that you imposed such conditions as to render the sale impossible?—That is absolutely incorrect.

92. It was alleged that one of the conditions was that the purchasers of the mine would have to enter into a covenant not to sell in the Colony of New Zealand?—I give an unqualified denial to that statement, and say that no one authorised to negotiate for the sale of the Wallsend Mine on behalf of the Westport Coal Company ever made such a condition. On the face of it it must be incorrect, because no transfer of the property would have been allowed to pass with such a condition as that attached to it.

93. Have you any suggestions you can offer this Commission as to the inspection of coal-mines or the working of the Coal-mines Act?—No.

94. So far as you are aware, does the Act work well from the owners' point of view?—I am scarcely prepared to answer that question.

95. Have you not found the regulations harassing?—The principal regulations under the Coal-mines Act do not come under my notice so much as under the manager's notice. I know of nothing; and, as far as I know, the Act works all right.

CANTERBURY DISTRICT.

CHRISTCHURCH.

THURSDAY, 28TH MARCH, 1901.

WILLIAM HENRY HARGREAVES examined.

1. *The Chairman.*] What are you?—I am a merchant, residing in Christchurch. I am also liquidator of the Westport-Cardiff Coal Company (Limited). I was chairman and managing director of the company from its inception until it went into liquidation.

2. When did you first become connected with the company?—In 1892. The company was formed and incorporated in August, with a nominal capital of £30,000, of which about £17,000 was subscribed. That represented our capital.

3. Was it subscribed in cash or taken in paid-up shares?—Actual cash subscribed.

4. And the balance of £13,000?—Portion of that balance was allocated in part payment of £10,000 which we agreed to give to the holders of the prospecting lease. It was agreed that the company should take over that lease at £10,000. £5,000 was to be given in paid-up shares of £1 each, and £3,000 was to be paid by way of a royalty at 1s. per ton on the first 60,000 tons produced, and £2,000 in cash. That represented the owners' interest; and, based upon the information we had, we thought it was good enough at the time to give the owners of this prospecting lease a bonus of £10,000 for their rights.

5. This left 8,000 shares unallotted?—Yes. These terms were subsequently modified. After the initiation of the company, and we had started operations, we found that, in consequence of the small amount of capital available, it would be unwise on our part to be compelled to pay £3,000 in royalty, at the rate of 1s. per ton on the first 60,000 tons, and negotiations were opened up with the vendors with a view to converting the £3,000 into another form. This was subsequently done, and the vendors took additional paid-up shares in lieu of the £3,000, on which we had to give them a bonus.

6. How much in paid-up shares?—It amounted, I think, to £800 odd. In place of the £3,000 they got £3,800 in paid-up shares.

7. That left you with only £17,000 for capital?—Yes. The new Cardiff Company, referred to by Mr. Bayfeild, was only a syndicate, not a registered company.

8. The property consisted of what?—About 1,800 acres in the Mokihinui district.

9. Held under a coal lease?—Yes, of sixty-six years, at a dead-rent of £450 per annum, merging into a royalty of 6d. per ton. So soon as the royalty exceeded £460 the dead-rent ceased.

10. It could not be less than £450?—No.

11. What work had been done in opening up the ground?—So far as the Westport-Cardiff Company was concerned, nothing was done except preliminary inspection on our part.

12. Had the vendors or any other persons done any work on the ground itself at the time the company was registered?—They told us they had spent £1,600 in prospecting, but nothing had been done by way of opening the mine. I presume there were other expenses as well as prospecting included in the £1,600. This statement was backed up on their part by the production of the Government Geologist's report on the lease, which I will put in.

13. Was the report favourable?—Yes; and was accompanied by Sir James Hector's letter, which is of a favourable character also. It was Mr. McKay's exploration. We set to work and were ready to put out coal in June, 1894. Our lease was dated the 31st March, 1893, I think. We were compelled to stop putting out coal when ready to send it to market in June, 1894, in the middle of winter, in consequence of a difficulty in respect of haulage with the owners of the Mokihinui Coal Company's line.

14. That difficulty was overcome, I suppose?—It was, at a tremendous loss to us. The mine remained closed down from June, 1894, till November, 1894. We lost the whole of the winter trade, the reason being that the Railway Commissioners for the time being, who had to provide the rolling-stock for working that portion of the mine, determined, in our absence and without our consent, and without consultation with me or any one connected with the company, to pay the Mokihinui Coal Company 1s. 4d. per ton for traction or way-leave for our coal from our own siding over about a mile and a quarter of their line. We told them we would shut the place up and lose every penny of our money rather than agree to such terms. We did shut the mine up, and it remained shut until November. In the meanwhile, between June and November, I spent four months at intervals in interviewing the Government and the railway officials, and finally petitioned Parliament, being supported by the Government, to get the question of haulage settled, urging the Government to either take over the Mokihinui Company's railway-line or to fix a reasonable rate for way-leave. It was ultimately decided that the Government should take the line over—I believe it was in the month of December. The effect of the Government taking over the line was to reduce the cost of traction from 1s. 4d. per ton to ¾d. per ton per mile. I need hardly say that had they persisted in the other course it would have ruined us or any other company that attempted to work the property.

15. How much did you expend in preliminary works?—To the best of my belief, from £8,000 to £10,000. I might say that a condition which the Premier insisted upon in our lease was one that had never been imposed on any one in the colony before. We had to deposit £2,000 cash with the Government before the lease was granted as a guarantee that we would spend within the first two years £5,000. That money was retained by the Government during the whole of

that period, and they never paid us a cent of interest. We redeemed it by the expenditure, and the amount was refunded.

16. If a fair valuation were made of the whole of the plant and permanent works constructed for the opening of the mine, what would you say it would amount to as at the date of closing the mine?—I can only tell you what we have spent. I can hardly tell you what would be a fair valuation. On the 31st December, 1898, which is the nearest date, as we closed down the next year, the amount we had expended, including the £2,000 paid in cash on account of the lease, was £31,300. That is from our balance-sheet.

17. Does the £31,000 include the colliers' wages for getting the coal?—No; that is a different matter altogether. £31,300 was spent solely in works and plant, including £2,000 which we paid to the vendors as part of the purchase-money for the lease.

18. What was the amount outside the preliminary expenses, such as the purchase-money for the lease?—It would be £29,300. In forming the company the preliminary expenses had to be paid, and that is included in the expenditure I have put down here. It ran up to a large amount. There were wages going on for the best part of eighteen months before we touched the coal at all. For instance, we paid in wages during the progress of the work in 1893 over £1,000. Then we had to pay our rent, which amounted to £195, during that period.

19. Mr. Bayfeild said about £40,000 was spent in works and development?—My figures and his would come to practically the same.

20. You said the company started in 1892?—Yes.

21. You put in a railway-siding?—Yes.

22. Can you tell us what that cost?—I have not got with me the original cost.

23. Could you tell me the length of it?—I think it is close upon half a mile. Of course, there have been writings-down each year for depreciation, and I find the siding alone in 1897 was valued by our engineer at £1,315. The total value of the permanent works, new sidings, bins, manager's house, and workshops and stores, the cottage at the mine, offices, and plant were then reduced to £13,133. That was on the 31st December, 1897. In 1898, although the siding was written down from £1,315 to £1,250, increased expenditure brought the total value up to £13,437 odd, and on the 31st December, 1899, the total value was written down to £12,196. We wrote off from 1894 to 1899 £11,438 for depreciation which we had actually expended.

24. Do you remember what quantity of coal you got out?—Yes.

25. Give us the total output first?—From the time of commencement to closing in September, 1899, 227,930 tons, consisting of 44,728 tons of screened coal, 120,316 of unscreened coal, and 62,884 tons of nuts and slack.

26. Where did you sell that?—The bulk of it was sold at Lyttelton.

27. Would the company pay the freight?—Yes; with the exception of Wellington, and the small trade we did with Nelson occasionally, and with Wanganui and Napier. In fact, I might say that all the coal delivered at other ports than Lyttelton was sold free on board at Westport, and the purchasers paid their own freight.

28. Can you give me the selling-price at the pit's mouth, which includes your own siding?—My answer will be found on page 3 of the Coal Committee's Report, question 4.

29. Is there anything you wish to correct in that evidence?—No; I wish to repeat the evidence given by me before the Committee of the House. [See Parliamentary Paper I.–7, 1900, page 3.] The average cost from the 26th December, 1898, to the 18th March, 1899, at the pit's mouth would be 5s. 9d. a ton.

30. That is what it cost you?—Yes. We had to add the royalty of 6d., and commission based on a 60,000-ton output. The average cost per ton for agencies in Westport came to 3½d., and then there was the management, 4d. a ton, and the Miners' Accident Fund, ½d. a ton. These items brought the total cost to 6s. 11d. Then, the railage from Seddonville was 3s. 2d. per ton, which brought it up to 10s. 1d. Then, acting upon our past experience and looking forward to the fact that we were bound to make further provision for depreciation, we found this would stand us in —with the same output—about 8d. per ton. Then, there were stores, which came to 3d. per ton on the output. That would, of course, be a diminishing quantity as the output increased. Therefore our cost at Westport for all classes of coal amounted to 11s. a ton; and you will observe that we were selling coal which cost us 11s. a ton to the Union Company and others at 7s. 3d.

31. Free on board at Westport?—Yes. Out of the total output of coal we only got one-fifth of good coal.

32. What was the 7s. 3d. a ton for?—For the nuts. We turned out 62,884 tons. The unscreened coal was the larger output—120,000 tons, or about half the output; and a great deal of that coal was so bad because it was so soft that we had to sell it from 7s. 3d. to 7s. 6d., but the ordinary price ranged from 10s. to 11s. 6d. Our contract for Government railways for unscreened coal, which we had to screen and take out one-third of the dust, was 16s. delivered at Lyttelton.

33. Did you sell any coal to dealers in Westport?—Very little; we got a less price in Westport for our coal than anywhere else. We did not cultivate the trade there.

34. *Mr. Proud.*] You had no depot in Wellington for a retail trade?—No; from the time we started until we closed down we never dealt with any one except our agent, Mr. J. Brown.

35. *The Chairman.*] What was the average number of persons you employed?—When in full work, about a hundred and twenty. That was based on the limited output of between 50,000 and 60,000 tons.

36. Was there any particular crisis which caused the company to close the mine?—Yes.

37. What was it?—The failure of marketable coal.

38. Was there any difficulty with the Government?—There was a special financial difficulty. We attribute our failure to the want of marketable coal. Had there been a continuous quantity of marketable coal turned out we should, in all probability, have been able to pay our way. Another

reason for closing the mine was our inability to provide the large expenditure necessary for further opening up the mine—the want of necessary capital to open up a completely new mine.

39. What part would that be in?—That would be in what is known as the Cave area or district.

40. The capital of the company was then exhausted?—No; we have even now 2s. uncalled; 18s. had been called up, leaving nominally between £1,600 and £1,700 uncalled. The meditated expenditure on the new area was about £12,000.

41. Had you reliable reports as to the failure of the marketable coal?—Yes.

42. From whom?—Mr. G. H. Broome, who was our engineer and mine-manager, a man of superior talent and ability.

43. What amount of marketable coal was left in the mine at the time you closed?—Our manager reported that the marketable coal in the area opened up by our original workings was unworkable. The Hector block disappointed us. The bulk of the coal turned out to be stony, soft, and valueless to work. The manager took out as many pillars as he could with safety. It was ultimately determined to work the dip on the advice of the engineer. This entailed further heavy expenditure in timber, new haulage, and pumping plant, and in opening up in three places to the dip. During several months' operation the engineer reported that the indications were in the direction of the coal being cut off by faults, and each dip was jeopardized. He recommended that further operations should be undertaken to keep up our output, and it was ultimately decided to prospect what is called the Bridge section across Chasm Creek. Before doing this we determined to employ another expert in conjunction with our engineer, and obtained Mr. R. B. Denniston from Dunedin, who had gone over this district years before. He agreed to go over the whole of our mine with the engineer, and expressed his astonishment at the amount of coal we had been getting out of the mine, as he had condemned that district years ago. His report is now, I believe, amongst the official records of the department. He condemned the Mokihinui district in this respect: that there was no good coal. He said we were in the tail of the disturbed country, and expressed his amazement at the quantity of coal we had got out, as he never believed it existed, or that, if it did, it was unworkable. He said subsequently that as we had spent so much money we ought to attack the opposite side of the creek in the expectation that we might be kept going a few years, but he said there was a better indication for obtaining good coal in the Cave district, and that the Bridge area was only a stop-gap, so to speak, and would only last four or five years. In the meantime, he recommended that the necessary capital should be raised and the Cave district opened up.

44. You built the dredge and opened the section?—Yes; at a cost of between £2,000 and £3,000, and in six weeks after the time of opening the engineer had managed to open up about thirteen or fourteen faces. From the time he opened to the time of my visit, six weeks after, nine of these faces turned soft. The coal simply crumbled away, and it was throwing money away to mine it.

45. Do you know how many faces contained hard coal?—There is no hard coal. There is some fairly good steam-coal. I do not know how many faces there are of this coal, as I have not been up to the mine since. When indications were of such a grave character I gave the engineer instructions to make an immediate report, as I had promised the Premier that we would stick to the thing as long as we could honestly do so, and that before we closed down I would give the Government the earliest intimation of our intention to do so. We had regard to the men and their families, and did not wish to put these people to any serious inconvenience. I think it should be put on record that from the indications I noticed on my visit, and subsequently, I came to the conclusion that our existence was probably of short duration, and gave instructions to Mr. Broome to let the men know of the possibility of our closing down, and warning them not to go to any expenditure, or make any permanent arrangements, and ultimately to be thrown on their beam ends. Then, on Mr. Broome's return in the latter part of August, 1899, his report was sent in, and was found to be most unfavourable.

46. How long was Mr. Broome away?—About a fortnight. On his return he inspected the mine and reported, and said he could see nothing for it but to close down. Immediately on receipt of Mr. Broome's intimation to this effect I wired the Premier and the Minister for Railways, and told them that I was leaving on the following day to interview and lay our position before them. I went to Wellington, accompanied by Mr. Heywood, on the following day, and interviewed the Premier and Mr. Cadman, and laid before them the whole position, including the proposed scheme for opening up the Cave area, as suggested by both the engineer and Mr. Denniston. We told them the cause of all our trouble, and gave them the plans; and I may say that we had spent in the meanwhile, in preparation of this, a large sum in prospecting the Cave area by stripping the faces and boring, and getting every information possible from a scientific point of view, as well as a practical point of view, so as to satisfy us that the proposed expenditure would be justified.

47. And were the indications favourable?—Yes, very favourable. Mr. Broome thought that the indications showed a possible production of 70,000 tons per annum for about fifteen years' work, as this ground was the least disturbed of any part of the lease. This was quite apart from the possibilities with regard to other portions of the lease, because when we initiated the works for this area of about 100 acres they would open out other parts of the lease that we had never contemplated touching, which could be worked from the Cave area. The cost of opening up this area was estimated at £12,000. We told Mr. Seddon and Mr. Cadman that we were not prepared to spend another shilling on the property, as our experience had been of a disastrous character, unless we received consideration in such form as that we had been advocating for a considerable time—namely, the adjustment of the haulage-rate, to begin with, by the institution of a uniform rate on the whole Westport line, making each Crown tenant pay the same rate irrespective of distance. The total distance was thirty miles, and I maintained that, as the revenue of this line was handed over to the Westport Harbour Board to provide principal and interest on

their borrowings, the revenue could be maintained by a uniform rate, and that each tenant should be placed on an equal footing, as the coal was of a special character, only to be found in that district. I told them we were handicapped in the proportion of 2s. 1d. paid by the Westport Coal Company from Conn's Creek as against 3s. 2d. which we paid from Seddonville. We had also this difficulty: that we were in the most disturbed country in that district; and in the interests of the district it was a necessity to either institute a uniform rate or make some concession. The other condition was that we should be relieved from the incubus of the 5-per-cent. tax on the Ngakawau–Mokihinui line. By our lease we were compelled to provide 5 per cent. on the cost of this small section. The tax operates in this way: Originally the Mokihinui Company and ourselves were the only two lessees. The Act was inaugurated at the instance of the Mokihinui Company in order to enable them to get their coal to market. Their private line was constructed from their mine down to the Mokihinui River, and they hoped to avoid the payment of haulage from Mokihinui to Westport by shipping their coal from their wharf on the river. They found that this was impracticable, the river being too shallow they could not get their coal away. They approached the then existing Government—I think it was the Atkinson Government—and proposed that the State should join their line with the main line at Ngakawau, and they would guarantee 5 per cent. on its cost. The Government of the day agreed to the proposal, and the Act of 1890 imposed this penalty. I think the line was opened in August, 1893. You will observe that the line was opened before we ever touched coal, and we were then in the midst of our works. We put out coal in November, 1894—that would be fifteen months after the line was opened. The penal clause operated immediately the line was opened, and we were penalised before we touched the coal, notwithstanding that our lease required no output during the first year to enable us to get our preliminary works completed. The Mokihinui Company were utterly unable to comply with the output clauses of their lease. They only put out about 6,000 tons in 1895, at the time we began to bring pressure to bear on the Ngakawau business. The total quantities of coal put out by the Mokihinui Company will be found set out in our petition to the House in June, 1896, a copy of which I will put in.

48. The company petitioned the House?—Yes.

49. With what result? Did you ever pay the £2,000 deficiency on the railway?—It has been paid by the Government taking over the whole of our property. The total claim for deficiency was £4,412 at the time we closed the mine. The petition of September, 1900, resulted in a reduction of this claim by £2,090.

50. Were you not told that it might stand in abeyance?—Yes; in the earlier stages of our operations. The Premier suggested that the only way he could relieve us from our latest difficulty was by a pound-for-pound subsidy. That is to say, if we provided £6,000 the Government would provide £6,000, or in that proportion. We said we would agree to that provided the other items were agreed upon—namely, that we were relieved entirely from the payment of all deficiency past, present, or future, and remission of debt for royalty. The Premier appealed to Mr. Cadman, and said he thought this could be done. Mr. Cadman agreed. The other question was that of haulage, and the Premier pointed out that Mr. Cadman was always averse to a uniform rate on the railways, the reason being that other people in the colony would apply for the same thing. We pointed out that this line was not worked in the same way as the other lines of the colony. The revenue goes exclusively to the Westport Harbour Board, and is the only source from which the Board derives its income. That in order to keep the district open a concession in haulage was imperative, otherwise they would find some day that the portion of the line from Ngakawau to Mokihinui would practically become old iron, and that is what I am afraid it has been for some considerable time. I interviewed the Harbour Board repeatedly on this question, and the substance of all the communications was laid before the Government and especially Mr. Cadman. I pointed out the difficulty of the haulage-rate, and said that we could not face it in view of the other difficulties we had to face in that district. The revenue could be maintained by a very simple process, and I pointed out that the largest revenue they had received up to that time was during that year. The bulk of it was earned by coal. If they divided that revenue by the number of tons of coal put out it would give an amount of 2s. 2½d. a ton, and, in addition to this, they would get the ordinary goods and passenger traffic. I did not suggest to the Government or the Harbour Board that they should confine themselves to 2s. 2½d. or 2s. 3d. a ton, but that as they had the control of it they could regulate it to suit and maintain the revenue, the object being that each tenant should pay the same rate, and therefore the coal could go into the market, so far as haulage was concerned, on the same footing. Very naturally, the Westport Coal Company had a very large say in this matter. The present rates are 3s. 2d. from Seddonville, 2s. 6d. from Granity, and 2s. 1d. from Denniston. Now, if 2s. 3d. all round would produce the same revenue, the Westport Coal Company would only pay 2d. on Denniston coal, but 3d. less on Granity coal, which would more than equalise the matter, as the Westport Company would ultimately take the greater part of their output from Granity. I have not had any conversation with Mr. Joachim on this subject, but I think it would be cheaper for them to get the bulk of their coal from Granity. If the haulage was equalised it would not make any appreciable difference to them. The difference to us under the existing arrangement was 50 per cent. against us. That is to say, as regards the Denniston coal, where they pay 2s. 1d. we pay 3s. 2d., which is 1s. 1d. against us. The difference would be less with Granity—namely, 8d. against us. Mr. Cadman did not see his way to agree to this suggestion, for the sole reason that if he did so other portions of the railway public would clamour for a uniform rate, and he was not prepared to pledge himself in that direction.

51. Have you considered the question that the Westport Company have from four to five miles of private line over which they have to haul their coal before putting it on the Government line?—Yes.

52. The Mokihinui Company have no such haulage?—No; but I think you will find that the difference in output of the one as against the other is a most important item: the greater your output the less the proportionate cost; and I can safely say that the Westport Company can compete and have competed favourably as regards ourselves, notwithstanding that we produced our coal at a lower price. Our traction is very small indeed as compared with the Denniston Mine, but the output of that company quite compensates, and more so than in our case. The increased output decreases the cost.

53. From Waimangaroa to Westport the haulage is very much greater in proportion, although it is a short distance, than it is from Mokihinui. The first eight miles is the expensive distance, and the Government charge 1s. 10d. for the first eight miles, and then say a proportion of 1s. 4d. for thirty miles?—Yes; ¾d. per ton per mile after the first eight miles. There is an important item which adds to the cost of maintenance between Denniston and Westport, and that is the tremendous wear-and-tear of the trucks going up and down the incline. I have drawn the attention of the General Manager of railways to the fact that the cost of renewals is something enormous, as the department are constantly putting in new axles on the rolling-stock in working the Denniston incline There is a greater proportionate expense on this section by reason of this wear-and-tear than could possibly be anticipated on the level line between Westport and Mokihinui, consequently the haulage should be less on the latter.

54. Do not the Westport pay for use of the trucks used on that line?—No; they only pay for the loss of them. They get the use of the trucks free. We are all on the same footing. My information with regard to the wear-and-tear is derived from headquarters. It is not the fault of the Westport Company, but the fault of the traction, and that very important item ought to be taken into consideration. These are some of the reasons I have adduced, and there may be many others, for justifying the uniform rate. If the Westport Coal Company had received the same treatment as we have in the earlier stages of their operations they would probably not have been in existence now. I contend that you should not penalise new industries in their infancy, and that if the Government wish people to invest their money in the district they will not do so unless reasonable facilities are given them. There is another point I wish to make. I say, without fear of contradiction, that there is not a coal company in this colony, from end to end, but what has received consideration from the Government, the only exception being the Westport Cardiff Company, which has never received a consideration worth a snap of the fingers from the Government. The Government have been asked repeatedly, and if they had been wise they would have given us reasonable concessions to keep us alive. On my way through Nelson about three years ago I made it my business, with permission of the Land Board there, to extract from their minutes the various concessions made to the coal companies in that district. I searched the minutes, extending over twenty years, and the result of my labours has been placed in the hands of the Premier, the Hon. Messrs. Ward, Cadman, and McGowan, the Westport Harbour Board, and one or two others. I have not got the paper with me, and cannot give it to you, but I say there is not a single company in this colony which has not received concessions excepting the Westport Cardiff Company.

55. You apparently had agreed to these things at the interview that you were to get a pound-for-pound subsidy, a rebate of the deficiency, and an allowance on the haulage-rate?—The haulage-rate was arranged in this way: that, inasmuch as Mr. Cadman did not see his way to meet us, Mr. Seddon said he thought it might be made up by making us an allowance. We said, "How would it do to make us an allowance of 8d. a ton on our coal up to 50,000 tons per annum, and a rebate on the royalty of 6d.? We will take our chance on all coal produced over that amount, you to put us beyond the possibility of loss on that item of haulage. If you will do that we will undertake the Cave area on the terms you have stated—namely, £1 for £1." We suggested the concession of royalty, and the Premier suggested the allowance on the haulage. The other two proposals were also on the Premier's suggestion. We said, "Unless you can give us these two things—namely, waive all claims for deficiency and allow rebate on haulage and royalty—we absolutely refuse to take a pound from the Government, because we think it would be wrong, with the experience behind us, to use the public money in that way." With regard to the uniform rate—to go back to 1897—the interest earned in 1897 on the Westport line was £10 4s. 11d. per cent.; in 1898, £12 2s. 2d.; in 1899, £13 3s. 6d. It was ultimately agreed at the interview that we (Mr. Heywood and myself) should go back to Christchurch and report, and advise the Government of any change that took place in the aspect of affairs; that the several matters agreed upon between Mr. Seddon, Mr. Cadman, and ourselves should be put into shape, and ultimately carried out. We had the assurance from the Premier and Mr. Cadman that at least the pound-for-pound subsidy would be forthcoming, and the Ngakawau deficiency wiped out; also that the matters of the royalty and allowance on haulage might be managed in the way suggested; and we left, and within three weeks—September, 1899—news came that it was absolutely necessary that we should close down.

56. Nothing was arranged definitely at this interview?—Except in the form I have put it. Those were the proposals that were to be adopted. When we reported to our directors they agreed that they would adopt the suggestions made by Mr. Seddon and Mr. Cadman and agreed to by Mr. Heywood and myself, and it was further agreed that we would not close down without giving the Government immediate notice. But when we got Mr. Broome's advice we found the closing-down inevitable. The character of the coal was such that the way it was shipped at Westport it became just like black sand, and the market was not then what it was four months later. At that time we were unable to sell this class of coal, and our only remedy, as wise and prudent men, was to stop its production. I had another interview with the Government in the same month, which was the very antithesis of the first one. It was of such a character as regards Mr. Cadman that one would suppose we had never had any conversation upon the matter with him at all. He asked me what I

wanted, and I told him I wanted him to carry out his own proposals. I turned to the Premier, who was present, and said, "You agreed to the subsidy," and he said, "Yes." I said, "Is it not true that you agreed to waive the deficiency?" and he answered, "Yes." I said, "Is it not true that you agreed to make an allowance on the haulage of 8d. a ton, and that you would consider the question of another 6d. in royalty?" and he said, "Yes." I said, "I only want to know whether the Government are prepared to carry out these proposals." I said, if so, we would set to work and raise the necessary money to carry out our part of the agreement, as we should require in all about £10,000 to carry on our business. At that interview I was requested to put into writing the proposals that had been made, and I am sorry to say that I put them in a much milder form than I should have done. I pointed out that these three things were the only suggestions that could be made to insure the continuance of work in that district. The reply was that the matter would be put before Cabinet on the following Sunday, and in the meantime they would instruct Mr. Hayes, Engineer in Dunedin, to meet me, and that after a consultation he would be instructed to proceed to Westport to consult with our engineer, Mr. Broome, and report to the Government upon the scheme that had been suggested. I met Mr. Hayes, and after a long discussion with him he proceeded to Westport, and Mr. Broome subsequently reported to me that Mr. Hayes was quite agreed with him as to the advisability and propriety of opening up the Cave area, and that Mr. Hayes was more favourably impressed with it than he (Mr. Broome) was and anticipated better results. Mr. Hayes reported to the Government, but I could get no information with regard to their intentions for over six weeks. I asked them to give me a copy of Mr. Hayes's report, and the reply was to this effect: that it was in accordance with the agreement arrived at between Mr. Hayes and our Mr. Broome; that preliminary works should be started to put in a drive at the upper end of the Cave area, where the coal would have to be worked, and a tunnel put in as a prospecting-drive at a cost of about £800 before committing either party to the larger expenditure; that in the event of this prospecting-work turning out satisfactorily, then it would form part of the whole scheme and could ultimately be gone on with. The Government ultimately wrote to me to the effect that they were prepared to undertake the preliminary work on these terms: that they were to provide £400, and we were to provide the other £400, they to pay one-half of the engineer's salary for a term not exceeding six months. The nominal amount of the prospective work was only the very smallest proportion of what it would be to us, because we had our offices to maintain, and other expenses which we could not possibly get rid of; also the necessary tools and plant. We wrote to the Government, in reply, stating that we would call for tenders in accordance with their request. We got the tenders, which were submitted to the Government, and we asked them to state which tender they would authorise us to accept, and also to give us an assurance in writing that in the event of the prospecting-work turning out satisfactorily they would carry out the remainder of the proposals which had been agreed upon, so that we might take immediate steps to raise the funds to go on with the main scheme, and not to waste time, as the whole work would take two years to carry out. After further delay, amounting to the best part of a month—during which a change took place in the Department of Mines, Mr. Cadman retiring and Mr. McGowan taking his portfolio—we were told that unless we unconditionally accepted £1 for £1 up to £400 for this preliminary work the Government would step in and put an end to the unsatisfactory state of affairs existing at Cardiff, and that they would give no pledge whatever respecting the future. On receipt of this we sent a polite letter in reply, regretting the attitude taken up, and stating that under the circumstances we would decline to accept any moneys for expenditure in the form they had offered it. The result was that we called the shareholders together, and after laying these matters before them they decided to put the company into liquidation. Repeated applications to the Government to reconsider the position met with a definite refusal on their part to do anything more.

57. Was the date of that letter after you closed the mine?—Yes.

58. These negotiations were going on during the time you closed the mine?—Yes. From September, 1899, until March, 1900.

59. Did not the fire have something to do with it?—No. The fire broke out in January, during the time that we were discussing the propriety of waiting before liquidating in the hope that the Government would keep us alive by carrying out their proposals, and at the latter part of January, when we were going into liquidation, the fire broke out. We had previously given notice to our engineer, Mr. Broome, who took another post at Kaitangata, and while he was on his way south, the fire took place.

60. That must have had some effect on the negotiations with the Government?—Probably it had, but I believe it would not have affected us. I believe that had the negotiations with the Government been carried out the fire would not have taken place.

61. Why not?—Because closer supervision would have been followed, and no doubt it would have been tackled sooner with some one in authority. These are briefly the particulars leading up to our going into liquidation. Ultimately I had an interview, after we had gone into liquidation, with Mr. McGowan in Christchurch, and pointed out the great difficulties under which we had been labouring for many years, and asked his consideration in view of the enormous expense we had been put to, laying stress on the fact that the shareholders had not got anything out of the mine from the time it was opened. I asked him whether the Government would take the mine over at a valuation.

62. When was this?—In May, 1900.

63. It was not after the mine was closed that negotiations went on?—It was both before and after. It was all prearranged with the Government that we should not close down without giving them notice; but the preliminary arrangements about keeping the mine going were settled, and we would not have closed at all had these arrangements been carried out.

64. When did you close the mine?—In September, 1899.

65. Did you discharge all hands?—We kept the caretaker, Mr. R. J. Broome, and Mr. Mitchell.

66. When did you cease to pay Mr. G. H. Broome?—I think it was the end of January. Mr. Broome had received three months' notice, and he left in January.

67. What was Roland Broome?—He was a clerk.

68. Was Mr. Mitchell on regular pay?—Yes. I think he was retained after Mr. G. H. Broome left, because it was thought to be unsafe for Roland Broome to go into the mine alone, and it was decided that it would be wise to retain Mr. Mitchell to accompany him.

69. Mr. G. H. Broome was in charge until January?—Yes.

70. Was Roland Broome on regular pay until then?—Yes.

71. Was Mr. Mitchell on regular pay?—Yes, I think so. They all received full pay. It was on Mr. Roland Broome's recommendation that Mr. Mitchell was appointed after Mr. G. H. Broome left. Mr. Mitchell only received four hours' work in October. In November there is no record, nor December. He appears again on the pay-sheet from the 26th January to the 10th February, for twenty days and three hours.

72. Before Mr. G. H. Broome left the locality did you appoint Mr. Roland Broome?—Yes; it was agreed between Mr. Broome and myself that when he left Roland Broome should take charge.

73. Up to the 25th January, and after the 25th January, Mr. Mitchell was on full pay?—Yes, after Mr. G. H. Broome left.

74. Was he on full pay before?—No, I do not think he was.

75. Was he on full pay after January?—I will look that up and let you know. Roland Broome was instructed to take charge of the whole concern; but he subsequently wrote to say that for safety's sake it would be better to have another man, and I agreed to his appointing Mr. Mitchell. It was agreed that Roland Broome should have charge over Mr. Martin. I am not quite clear about the dates.

76. What was Mr. Mitchell?—He was underground foreman or deputy. I find that he was not on full pay after January, but was engaged only at intervals going through the mine with Mr. Broome.

77. Did you give any instructions as to the inspection of the mine?—It was agreed that Mr. Broome and Mr. Mitchell should inspect the mine at intervals. I did not give them any specific instructions, but gave him general instructions and authority to overlook and take care of the property. I did not think it was necessary to instruct them to inspect the mine daily, as fire was the last thing thought of.

78. At this date, 29th January, had the company any money at all in the bank?—Yes; about £900, I think, to their credit.

79. Had they any pressing liabilities?—No. This money was the proceeds of calls. We had made two calls in order to provide for our indebtedness for royalty.

80. And for the £400 referred to for tunnelling the Cave area?—Yes.

81. There was no difficuty at all in providing funds for coping with any emergency in connection with the fire?—No. When the fire was first reported to me I immediately gave instructions—Mr. Bayfeild having advised that Mr. Dixon and others should be taken up, and I practically gave them a free hand.

82. When did you first hear of the fire?—I think it was on the Monday after discovery on the Sunday, 29th January.

83. What were your instructions?—I gave instructions to do everything that was necessary. I gave instructions to Mr. Bayfeild and Mr. R. J. Broome. Ultimately, Mr. Dixon and Mr. Tennent took charge.

84. Did you ask for Mr. Dixon's services?—No; Mr. Bayfeild engaged him, and subsequently advised that he should be placed in charge, and I agreed to it. When the fire broke out, Mr. G. H. Broome was on his way south, and on the Monday or Tuesday he reached Christchurch. I immediately placed before him a report I had received by wire as to the outbreak, and the proposals made for coping with it. The chief proposal was that they should remove the fan to the mouth of the mine, and get ventilation in to drive away the smoke. I said to Mr. Broome, "I am not an expert, but it strikes me that this is suicidal. The only thing is to block the mine up immediately." He said, "Yes, that is the only thing. If the fan was in the right position now it might do, but it will take about a week to put it in position. I wish I could go back, but my engagement is so stringent that I am bound to go."

85. What would be the conditions of things now if they had blocked the mine up?—I cannot say. I understand that when the fan was used it increased the intensity of the fire.

86. They did block the mine on the Sunday night, and again on the Monday?—They sealed it, but not effectually. They should have sealed up all outlets. Mr. Broome agreed with me that it was a mistake to put the fan on after the lapse of a week, and he predicted that great trouble would result.

87. *Mr. Proud.*] You do not know why the instructions from Mr. Broome to his brother were not carried out?—He could not give him instructions when experts were in charge. He indicated where the fire probably was in the long jig.

88. *Mr. Lomas.*] Did Mr. Broome indicate that the fire would spread during that week?—The gist of what he said was that he thought it would do a great deal more mischief after a week's delay.

89. *The Chairman.*] Why would the fan be worse after a week?—I concluded Mr. Broome's notion was that if they could put it in at once to locate the fire and feel their way, so to speak, it would be useful, but if they were going to take a week there would be disaster. He said the only thing was to seal the mine up effectually at once, and that was my own idea.

90. Where was he to seal it?—At every external opening. He did not go into particulars but his idea was similar to my own—that if they could locate the fire and block up all the roads leading to it, then the main road might be saved. The chief danger was that the main road might be destroyed, but as the fire got such a hold it necessitated all the openings being blocked up.

91. Do you mean that the openings should be blocked up close to the surface?—Yes. One of the openings might have been closed by the fall in the roof. When we took out the Rise pillars on the Hector block, of course, the roof dropped. That might have closed one or possibly two of the openings, but there were three of them. One of these openings was made during one of my visits there. That was the third one. The headings were driven right through into the creek. It was done intentionally, I believe, for ventilation.

92. You say that the mine should have been sealed off in order that the main haulage-way could be saved?—Yes. When the fan business failed, the instructions of the Government Inspector to seal the mine up and complete the dam were carried out. I gave instructions to Mr. Bayfeild and Mr. R. Broome that they were to carry out all that Mr. Tennent wished, and I paid for the work.

93. It was no use putting these dams in if there were other openings?—No. I have no doubt that the broken roof and upper crust caused fissures which created a draught. After the pillars were taken out the fissures would extend to daylight. [Plan produced and positions located.] Two days after the fire was discovered I sent the following telegram: "30th January. —Mr. Roland Broome.—Take immediate steps to secure second tunnel and all faulty places in the main road, as advised in the engineer's letter of the 19th January." No time was lost. I knew that a large body of plant was at stake, and I gave those instructions. The pay-sheet produced shows that a large expenditure of money—£163 14s. 9d.—was made on account of the fire.

94. How much did you pay altogether on account of the fire?—About £425. On the 29th January I advised the Minister of Mines that a serious fire had broken out.

95. I suppose Mr. Dixon was paid for his services?—He will be paid. His account came in during the process of liquidation, and came to £15 15s. as an expert. On the 30th January I wrote to Roland Broome, instructing him to take steps to extinguish the fire, and on the 3rd February in reference to sealing up the mine properly.

96. Had you indicated its contents by wire?—No; but on the 29th January I told him to do all that was necessary. The full situation dawned on me on the 3rd February, when I wrote as follows to Mr. Roland Broome:—

Your letter of the 31st ultimo to hand this morning, also your telegram of even date, in reply to which I wired you as follows—viz., "Engineer's opinion coincides with Dixon. Advises sealing up entire mine promptly"—and now beg to confirm same. I had a long discussion with your brother yesterday on this matter, and his opinion is most emphatic that after all these days' lapse since the fire broke out there was only one effectual course to adopt—namely, to seal up the mine—and I trust that my wire has been acted on, as to delay action until the Monday is only increasing the trouble and expense. If the district to the rise of the main road can be sealed off effectually, leaving the main road open, so much the better, but no risk should be run, and the whole mine should be blocked rather than the part affected only, if danger is threatened, and in the latter case the main rope should be removed to avoid damage if it can be done prompty and safely. We have no spare funds to incur any heavy expense, and I much regret that steps were not taken to seal off the entire mine at the outset, as this seemed to me the only wise course, speaking as a layman. Control all the expenditure possible consistent with the safety of the property. . . . There is one aspect of this fire business that I do not quite understand, and that is that the signs of it were observed on the Thursday previous to the outbreak, but who observed it, and why it was not reported, I do not know. Can you give me any information?

Yours faithfully,
W. H. Hargreaves, Chairman.

P.S.—Have just received your urgent wire advising fire fed from the broken ground of Creek. Cannot communicate with engineer, but suggest blocking up all openings of main road, and advise consulting with Mr. Dixon again if necessary.

To show that we were alive to the danger, and took every reasonable step to protect the property, I sent an urgent telegram addressed to Mr. Broome at Kaitangata: "Now trying to block fire from main road. Fire fed from broken ground Creek side. Dixon left. Please instruct Seddonville direct.—W. H. Hargreaves." There is another wire to Mr. Broome at Seddonville: "Have wired the engineer, Kaitangata, to instruct you direct. Ask Westport engineer's assistance if necessary." On the 7th February, after carrying out all the instructions and suggestions made by Mr. Dixon and Mr. Tennent, I gave instructions to Roland Broome as follows, by wire: "Cease all expenditure after mine blocked. Advise when this will be done, and the probable cost. Cannot continue heavy outlay." On the 8th I wired to the Premier as follows: "Fire in mine very serious, involving heavy loss plant. Cannot continue expenditure." It was an unknown quantity, and I could not see how to continue the expense, so I thought it my duty to wire to the Government in order that they might take any action they might think fit. I wired to Roland Broome as follows on the same date, the 8th February—he appears to have written to me and given me full particulars, which induced me to take this step: "Letter received. Secure tunnel temporarily. Stop timber supplies and all further expenditure. Have wired the Premier cannot continue it. Advise Tennent must cease outlay on mine fire. Cost of moving fan excessive. Submit accounts before payment." They ordered the fan to be removed, and we had to pay for it, and, knowing that we were bound to go into liquidation, it was absolutely necessary to control our expenditure consistent with our duty. I could not allow them to think they had an open purse to work upon. On the 8th February I confirmed the telegram, and wrote as follows:—

As the cost of effectually sealing the mine and smothering the fire is unknown, and we are quite unable to face such an outlay as this will probably involve over and above what has already been done, coupled with the probability of the Government taking possession, I do not think we are justified in incurring any further expenditure, and have wired to the Premier to the effect as above stated. Mr. Bayfeild states that the existence of fire, or the danger of it breaking out, was unknown to the engineer before he left, but he wishes to have this statement confirmed or otherwise. Do you know anything respecting this opinion or remark, as it is unfair to your brother if without foundation? Should the Government decide to assist in any further operations respecting suppression of the fire we shall be glad to co-operate with them, and I will advise you accordingly. In any case, for your information and guidance, it seems to be inevitable that the company must go into liquidation, the Government having refused to give any undertaking in respect of the future.

With regard to the remark about the fire being known to exist before, I may state that Mr. Bayfeild communicated with the person who made the statement that the fire was known, and that person gave a point-blank denial to it. Further correspondence took place, and I agreed to carry out all Mr. Tennent's suggestions to the fullest extent, and when they were subsequently found to be ineffective I wrote to the Government declining any further responsibility.

97. *Mr. Lomas.*] Did you pay for the dams which were put in at both ends of the tunnel?—Yes. We paid for everything done in the shape of sealing up and closing the mine after the fan failed. That would be to the end of February. There is an item paid on the 5th April, "Timbering second tunnel, £13 13s."

98. *The Chairman.*] Can you tell us whether the company has paid for everything that has been done up to the present time?—I could not say. The last job required to be done at Mr. Tennent's suggestion was a dam at the mine-entrance costing £20.

99. What was the total expenditure on the fire?—About £425.

100. Do you know whether any money has been paid for work done in the extinguishing of this fire by the Government?—I do not know of my own knowledge.

101. Do you think they have?—Yes. I am aware that there was a vote provided for extinguishing the fire, but whether it was expended I cannot say. I was up at the mine in September last to inspect the property, but nothing was being done then. Mr. Mitchell was in charge.

102. Which happened first: the Government resuming possession of the mine, or the company going into liquidation?—The company going into liquidation.

103. Voluntarily?—Yes; on the 3rd March, I think it was, 1900.

104. Did the Government resume possession of the mine?—Yes; they took possession on the 23rd May.

105. Did they give you notice first?—No.

106. No notice whatever?—Not of the actual possession. This was posted up at the mine office, I believe. They gave us notice that they would determine the lease, and we were anxious that they should do so; but we did not anticipate their taking possession of the whole of our property. On the 3rd May, I think it was, the Mines Department gave me notice by wire respecting further action to suppress the fire. This is my reply:—

Under-Secretary, Mines Department, Wellington.

I AM in receipt of your telegram of even date advising that instructions have been given to the Inspector to take immediate action to prevent fire spreading further, and that demand will be made on the company for whatever sum the Government may spend in attempting to put the fire out. In reply, I beg to inform you that I have done all that the Inspector advised should be done, and that the prospect of extinguishing the fire is very remote. I cannot recognise any claims which the Government may prefer, and have no means at my disposal to expend on this work.

107. There was a final arrangement made, was there not?—Yes; I will give particulars later on. I wrote to the Premier in reference to the salvage of the plant. During the progress of the fire and the blocking-up of the mine a large proportion of the plant was salved from the Bridge section of the mine and faces, which was quite cut off. Mr. Broome advised that not only was the fan jeopardised but a large proportion of the plant, involving altogether somewhere about £1,500 to £2,000 of property, and the only way the property could be salved was by bringing it over the bush.

108. You let a contract to Martin to remove that plant?—Yes; for some £200. He removed the greater portion of it, and put it down in safety to where it is now. I paid him about £160 or £170. While this work was in progress the Government took possession, and during the progress of removal Mr. McGowan, Minister of Mines, reached the spot. I requested Mr. Broome to ask if the Minister would agree to a refund to the liquidator of the company the amount spent in salving the property. The Minister refused positively to pay a shilling, and further told Mr. Broome, who reported to me, that he considered it was my duty to provide money to salve this property for the Government. I disagreed with him entirely, and left the balance of the plant where it was, paying Mr. Martin for the proportion of the work he had done. He did not get paid in full, but he got the bulk of his money.

109. It has been stated that some mutual arrangement was entered into between the Crown and yourself by which they released you and you handed over the property to them?—Yes.

110. Was any deed executed?—Yes. I have not a copy of the deed, but I can give you the purport of it. In December, 1900, a deed was executed between myself, as liquidator, and the Crown whereby I conveyed the whole of the company's property—that is, the movable plant——

111. This did not supersede the rights under the lease; they were only extra to it?—No. We claimed the right to remove the whole of our plant that was not affixed to the freehold. The Government seized everything, and claimed the right to hold the plant, which they did for six months. We assumed that the Government had the right to take the land and permanent fixtures, but disputed their right to retain the movable chattels as they did, and we assigned these to the Government at their request, and in consideration of our doing so they released us of all indebtedness to them, which comprised £2,322, balance for deficiency under the Ngakawau Railway Acts, and £2,150 for rent and royalty owing. They have now got everything for that indebtedness. The total claim for deficiency was originally £4,412, but it was reduced by a rebate of £2,090 under the new Act, which was passed for our benefit last session, releasing us from all liability as from the 31st March, 1897. The Act was passed according to a promise given by the Government. We presented a petition to the House asking for relief from all deficiency in September, 1900. It was referred to the Railways Committee, and when I attended before that Committee the Government sent a message from the Mines Department stating that they intended to bring in a Bill that session releasing the Cardiff Company from the payment of £2,090, which was the indebtedness from 1897 to the time of closing down.

112. But it did not matter to you whether your indebtedness was £2,000 or £4,000?—Not very much; but had the Government carried out their promises given to us we should possibly now have been in operation. The Government are now in possession of everything. The total revenue we have contributed on the haulage of coal from November, 1894, to September, 1899, when we closed down, amounts to £35,642. We paid during the same period for wages £50,822. We received for the like period for coal passed through the books of the company £158,772, and the bad debts during the whole of that time were only £7 15s. I take it that this latter item is a record for the whole of New Zealand. We paid the freight and other expenses in connection with the management and commissions in addition.

113. You lost all your capital?—Yes; we have practically lost the whole of our paid-up capital.

114. And you have never paid a dividend?—No.

115. Will there be a final dividend?—Yes; of about 4d. in the pound, unless the Government can see their way to carry out the recommendations of the Railways Committee and refund the £2,000 in connection with the deficiency. This is the letter written after the second interview between the Premier, myself, and Mr. Cadman, when they asked me to put in writing what was required to be done in September, 1899:—

[See Exhibit 5.]

I also produce a report on the mine from our late manager, Mr. Broome.

[See Exhibit 6.]

116. *Mr. Proud.*] Does it not appear to you that the cost of production of the coal is very high?—Yes. It increased considerably as the mine developed because of the tremendous amount of stone. In one portion of the mine—the Hector block, on which we set so much store—we had not only up-throw and down-throw faults, but a frame-work of stone, in which the men could only work for about 9 ft. The coal was excellent in quality, and very hard, but the men could not work it profitably owing to being confined in these narrow frames of stone. When we got to the dip workings we found faults all round. The engineer said it was utterly hopeless to go on, as the coal would cost us more than it would bring at Westport. Had we not been compelled to close down in September, 1899, but could have gone on for the next four months, and if the arrangements had been carried out to open the Cave area we should have been able to participate in the tremendous spurt which took place in the coal trade about that time.

117. You spoke about the soft coal, but its softness does not reduce its calorific power?—You try to sell soft coal and hard coal and you will see the difference. Ask the Government if they will take soft coal, and they will tell you No. They have point-blank refused to take our soft coal.

118. But when you destroy the soft coal it is loss not only to yourself but to the colony. Can you not suggest some means of utilising it?—Certainly not. One suggestion has been made to turn it into briquettes, but that would never pay.

119. How is it that they pay in other countries?—Other countries are not New Zealand. Westport coal stands alone, so to speak, and when the coal trade is easy the consumer will not take Westport coal unless it is in first-class condition, but when the market is tight they will take anything they can get, as they are doing at present.

120. Not only does your cost of production seem to have been very high, but the price realised seems to have been very low?—Yes; because the competition was very keen, and we could not get higher prices. We failed to get a reasonable price from the Government after applying to them repeatedly.

121. If you had had proper sorting and cleaning appliances at the mine could you not have sold your coal in better condition?—No; the coal was clean enough, and there were no impurities in it. We paid the men 1s. a box for all the stone that came out. It is the most tender coal that I know of in the colony, the soft coal especially so.

122. Twenty per cent. seems a very small percentage of round coal?—Yes, very small.

123. Could that not be increased?—Yes, by a different mode of shipment. It is a very large order, no doubt, to raze the staiths at Westport and introduce the system of hydraulic or steam cranes by which the truck is taken down into the hold. I have seen large lumps of coal strike the wire netting used to divide the hold in the ship, and they have been smashed to dust.

124. Do you not think the house coal could be put into bags at the screens?—It would never pay.

125. Do you think the abolition of blasting by powder in the mine would improve the quality of the coal?—I am not sufficiently versed to express an opinion on that question.

126. What is the difference between the best house coal and the smudge?—I think the present price for Westport nuts and slack in Lyttleton is 16s. The unscreened coal is £1 1s., and the screened coal from the mine is £1 5s. The coal screened in Lyttleton will be £1 7s. at the beginning of next month.

127. Do you look upon the Government Inspector as an agent for the lessor as regards the working of coal?—No; he never interfered with anything except the proper working and safety of the mine. We regarded him as an officer simply to see that the requirements of the Act were carried out, and to report whether they were or not.

128. *Mr. Lomas.*] Did he ever interfere with your carrying out the conditions of your lease?—Never to my knowledge.

129. *The Chairman.*] He had to see that you worked the coal in a proper manner without undue waste?—Yes; but he never had any complaint in that respect. In fact, I think all his reports have been most favourable. Of course, anything coming from the Government Inspector would be always met with recognition on the part of the mine-manager or engineer.

130. Do you deal in coal generally?—Yes.

131. What is the retail price of coal in Christchurch?—For Westport coal the uniform price for screened coal is £1 19s. by the ton delivered. That means screened coal as supplied by the Westport Company at Lyttelton at £1 5s., and is the coal which has been screened at the mine. This coal is then discharged at the various sidings and yards in town, and is screened again. The consumer insists upon having it screened, and it is the practice of the trade to screen it again, with the result that it leaves a loss in slack of from 2s. 6d. to 3s. a ton. There is £1 5s. for the cost of the coal, 3s. 6d. for railage from Lyttelton, 6d. for discharging, and 2s. 6d. for loss by way of slack. The value of the slack is an unknown quantity, because it varies according to the time of the year and the demand.

132. What could you get for Westport slack now?—The nominal price is £1 4s., delivered in town.

133. Are there any other expenses before it gets to the dealers' yard?—There is the screening, which costs 1s., and cartage 2s. 6d.

134. That would be £1 12s. 6d. per ton as the cost to the dealer?—Yes, without cartage, and shows 8s. 6d. loss on slack, and you have to make that up. There are no nuts in dealers' screenings. If you take the cost of the screened coal, including cartage, at £1 15s., dealers do not make much out of it. The approximate loss in slack must be placed on the screened portion of the coal. I usually put it down at 2s. 6d. per ton, but the average loss will be more. You cannot estimate the amount of slack you will get when purchasing coal at Lyttelton.

FRIDAY, 29TH MARCH, 1901.

W. H. HARGREAVES re-examined.

1. *The Chairman.*] Have you anything more to add to what you said yesterday?—Yes. The question of dealing with the property of the company is not settled so far as we are concerned, although it has been taken over by the Government. The Cardiff Compay had observed from the beginning until its closure—with the exception of the non-payment of the deficiency—every tittle of the lease, and had never broken any of the covenants. With regard to our output, we commenced with only 10,000 tons for the second and third year, and I think it was 25,000 tons for the fourth year, increasing gradually until the maximum output was 50,000 tons. In every instance we more than carried out the clauses in our lease as regards our output, as will be found stated in our petition. In fact, we more than doubled the output required of us during the first two years. While the Mokihinui Company failed to comply with the conditions of their lease, by reason of the failure of the coal, the burden of the penal clause in the Ngakawau Extension Act fell upon us, and as their output diminished our liability increased. Had the Mokihinui Company observed their output conditions there would have been no deficiency. As they did not maintain their output, then our burden became increasingly heavy. In the face of this the Government promised that in the event of our raising a further sum at a particular period for the extension of our works, which would enable us to go down to the dip workings—if we would raise another £5,000 for the development of our works—they would bring in a Bill to relieve us of all liability as from the 31st March, 1897. This was accomplished so far as we were concerned. We more than complied with the arrangement by spending over £6,000, but the Government took no steps whatever for over twelve months to give us the relief by introducing the necessary legislation. After the expenditure of the sum we had agreed upon we got into very serious "mine trouble," and were subsequently compelled to abandon all the original workings. Between the time of the Government's promise to give us relief by this Act and the expenditure of the money on our part in consideration of their doing so the Government allowed twelve months to elapse, and it was not until we expended the money that they undertook to consider the matter further. We told the Government the whole of our trouble, and when we reported the condition we were in, and stated that the money we had expended had been practically lost, they said, "Unless you raise another £5,000 we will not give you this relief." The point I wish to emphasize in respect of this is as follows: that, had it not been for the promise on the part of the Government to afford us relief under the clause in the amended Act, we never would have expended the £5,000 or £6,000 we did on the property. We expended it solely on the promise of the Minister, and we counted on raising further capital by the removal of this disability, because the existence of the penal clause in the Act was a bar to the raising of any moneys for expenditure in that district, and this constitutes an equitable claim on our part for relief in consequence of the Government not fulfilling their promise.

2. What you say can only be made relevant to the inquiry being made by this Commission by stating that it comes within the scope of "Inspection, Management, and Control," up to the time of the fire. Supposing we found that the management was deficient in any respect, your answer probably would be, "Admitting for the sake of argument it was, we were compelled to do, or omitted to do, certain things we otherwise would have done or not done, because of the breach on the part of the Government of obligations that they had entered into with us." That is the only ground on which I can see this matter is relevant, and I think it is a slender thread?—I have no desire to press the matter if it is not within the order of reference of the Commission, but it is relevant as affecting the management of the company to a very great degree. Following upon what I have said, there is another point which I think I may fairly characterize as gross unfairness on the part of the Government. When the Mokihinui Company failed, and ultimately went into liquidation, the Government purchased the property at auction for the sum of about £4,000. They held it for a considerable time, and it was subsequently advertised to be worked on co-operative lines; and if you turn up my evidence before the Committee of the House you will see that I made reference to it, and put in a document issued by the Mines Department, giving the terms under which tenderers were to make application for working the Mokihinui lease.

3. I think this is too wide altogether for the Commission to go into?—All I wish to say is this: that, while I have no objection whatever to the Government working any portion of the mines on co-operative lines, or anything else, when they make regulations, and we come under those regulations, I think it is unfair that a penalty should be imposed under a special Act of Parliament that we shall pay a certain deficiency on the working of the line, and when another property is thrown on the Government's hands it is handed over to anybody to go in and be made free from any such liability.

CHARLES WESLEY TURNER examined.

1. *The Chairman.*] What are you?—A merchant and commission agent in Christchurch.

2. What is your relation to the Blackball Company?—I am agent for their steamers, and also agent for dealing with all their coal throughout New Zealand.

3. You are in a position to give us authentic information with regard to the capital of the company, and so on?—Yes.

4. Will you run through the genesis of the property known as the Blackball Mine?—It consists of 1,914 acres. It was held under lease from the Midland Railway Company, I understand, originally. The freehold of the mine was sold by the Midland Railway people to Sir Edwyn Dawes.

5. Do you know when the mine was first opened up, and by whom?—I could not tell you that.

6. How long have you been connected with it?—Since 1894. I can only start my information from the first output of the coal by the present Blackball Company.

7. What was the company then?—It was known as the Blackball Coal-mining Company of New Zealand (Limited) then.

8. What changes took place?—The necessary paid-up capital at that time consisted of £44,907. The capital authorised was £80,000, but that company is defunct. It went into liquidation about four years ago. They had spent the whole of their money, and they wrote off the actual difference from the capital paid up to the present capital, which is now £27,000.

9. Did it pay any dividends?—It has never paid a dividend yet.

10. In 1897, or thereabouts, the present company was formed?—Yes; the Blackball Company, with a nominal capital of £35,000, of which £27,618 has been paid up in cash, and it issued debentures for £26,231, making a capital of £53,911. That was the position on the 31st December, 1899. We have no returns yet for last year.

11. Has all that been expended?—Yes; it has been spent in connection with the mine.

12. Was there any amalgamation of properties?—No; we simply took over what the previous company had. The old shareholders remodelled the company and wrote off portion of the value of their property.

13. Has the company ever paid?—The returns for 31st December, 1899, showed the nominal loss to be £2,418 for the year, and that is how the company stood financially that day.

14. Is it still the same company?—Yes; when the reconstruction took place the shareholders simply wrote down so-much and remodelled their company. They took the shares as at £1 paid up, and those interested found the debenture-money. Of course, they have had the interest on the debentures.

15. What is the interest on the debentures?—I can hardly tell you that, but I think it is either 4 or 5 per cent.

16. What are the prospects now—is the coal selling better?—Yes, undoubtedly; we have now a fair share of the trade of the colony.

17. And will there be a profit made this year?—Yes; owing to depreciation and loss in working, the London directors wrote off £2,400 last year, and we were therefore compelled to advance our prices, and as the prices throughout the world have advanced it has given us a chance.

18. What is the output from your mine?—In 1894 the mine turned out 30,380 tons; in 1895, 40,472; 1896, 45,348; 1897, 43,112; 1898, 52,837; 1899, 58,136; 1900, 81,426. We have lost practically three months of the present year owing to the fire, but for the current year I estimate that we shall sell, independently of what we dispose of on the Coast and to dredges there, 100,000 tons.

19. *Mr. Proud.*] Have you any idea of what you lost by the fire?—I do not think the actual effects are known yet. We had to purchase coal to keep some of our contracts going; but I should say we lost the sale during that time of about 25,000 tons. As far as the mine is concerned, we are now simply limited in the output by the working of the aerial tramway, so that we cannot hope to extend our present output until better facilities are given for the conveyance of the coal from the mine to the railway-line. If certain work is done in connection with this haulage difficulty we could turn out 200,000 tons of coal per annum. I think this year we ought to show a margin of profit upon the year's work.

20. *Mr. Lomas.*] Who carries your coal?—We carry it ourselves in our own steamers.

21. *The Chairman.*] What price are you able to get, say, at Lyttelton for house-coal, nuts, and slack?—House coal is a very small proportion of the coal we produce. We get for screened house coal sold to our largest purchasers £1 3s. 6d. per ton, but that is only since the mine recently started again. Before that we could not get anything like that price. That is the price *ex* steamer at Lyttelton. We sell it to small purchasers at from £1 4s. per ton. Of course, we have to discriminate between small and large purchasers.

22. What do you get for steam coal?—If we sell to the dealers we get £1 0s. 6d.—that is for unscreened coal. We get for unscreened nuts 15s. 6d. and 16s. this year—*i.e.*, for the nuts with slack included.

23. What proportion do nuts and slack bear to the output generally, say, for 1,000 tons?—On the most favourable conditions we get three-fifths of screened to two-fifths of slack if we are in hard coal.

24. You have not any grievance, I hope?—The only grievance we have is that, in common with all New Zealand, we want more trucks and more labour. We have no grievance against the Government.

25. *Mr. Proud.*] What do you mean when you say you want labour?—Our steamers are constantly being stuck up through the want of labour. The main difficulty is the want of trucks, and the next is the want of labour. If there is pressure on trade in Lyttelton we are unable to get enough men to discharge coal.

26. Can you sell all the coal that the mine produces?—Yes, and another 100,000 tons per annum if we could get it.

27. Have you not a good deal of small coal wasted at the mine?—I do not think so. I know that the other day I could not get any small coal. While the fire lasted we had to buy bunker coal, as there was no small coal at our mine to supply our vessels with. The cost of the coal is very much increased by the want of trucks. It generally takes two days to load a vessel of 600 tons. There are only two hundred trucks at Greymouth for all the mines, and our proportion is about eighty. Sometimes the vessels have to lose one or two tides in consequence of this. All the storage we have is at Ngahere. We have two boats which carry 750 tons, and one that carries about 600.

28. Is the mine compelled to lie idle through having to wait for trucks?—It is mostly through the vessels having to lie outside, bar-bound. For the last six months at Lyttelton every ton of coal brought in has cost 1s. per ton extra through delays for want of trucks; and I should think the want of a greater supply of trucks at Greymouth increases the cost of coal by 6d. per ton.

29. Can you explain why coast freights are so high in this country?—I do not consider they are high. The estimated cost of the coal last year was 10s. a ton—that is, for face coal. That was before the rise took place, and the results were not satisfactory. Owing to the delays to our vessels at Greymouth, and through the insufficiency of trucks there and at Lyttelton, and also owing to the want of labour at Lyttelton, we have had to put the price up 2s. per ton. The freight charged by the Union Company is 7s. a ton to Lyttelton; and, having had considerable experience as a shipowner, I may say that I do not think it is very much too high.

30. I understand that the present rate of freight from the Tyne to the Thames is only 3s. 3d. per ton?—That may be, but there is no delay there, and the expenses are very much higher here. Three years ago we brought the "Pareora" out from England, and paid her off at Wellington. Her articles showed that she cost £87 per month in running out from England to the colonies under English articles and Board of Trade conditions. I reshipped the crew after her arrival in Wellington under colonial conditions, and our pay-sheet runs up to £185, or more than double the amount paid before. To pay these wages and expenses we must have an equivalent in freight, and it is only a fair thing to do. We do not want to alter the labour prices. Our present prices for coal are based on 12s. per ton at Greymouth; that is for face coal, f.o.b. The freight I charge is the Union Company's rate—7s. per ton. Then there is insurance and exchange, say, 1d. per ton; weighing, 2d.; wharfage, 6d.; loading, 6d.; and railage to Christchurch, 2s. 6d. That brings our cost up to £1 2s. 9d. Then there is the realisation expenses, 1s. 3d., and that makes about £1 4s. If we lose on the slack, we must get so much more for the screened. If we screen the coal at Greymouth it costs from 2s. 6d. to 3s. beyond the price of the face coal. Therefore, it come to 15s. a ton for screened coal there, and it works out thus: 100 tons at 12s. = £60; yielding 40 tons small at 8s., and 60 tons screened at 15s. = £61. All our calculations are based on 12s., f.o.b., Greymouth. Another thing is that the Government insist on getting screened coal, and require from 90,000 to 100,000 tons per annum. The total quantity they ask for this year is 110,000 tons; but they require 70,000 tons screened coal from the West Coast mines, which is a very great disadvantage to all the companies supplying it. If the engines could be made to use unscreened coal it would be a great advantage, as it would also be if the public could only be induced to take unscreened coal.

31. There are also complaints made about short weight being given?—That is a matter for the municipalities to deal with, and I think it is their duty to protect the public in that respect. The screened coal we sell to large purchasers at £1 3s. 6d. *ex* steamer at Lyttelton, and to small purchasers at £1 4s. We opened retail yards ourselves, and sold coal to the consumer direct last year at the actual wholesale price, but we found that it would not pay at all. We sold it at £1 12s. 6d. per ton last year.

32. *The Chairman.*] Do you know what your price at Wellington is now?—To-day Blackball coal would be about £1 13s. to £1 15s. delivered, which is an advance of 3s. on last year. Our price here is £1 15s. 6d. per ton delivered anywhere within a radius of one mile and a half of Christchurch. For the extra cost of delivery we make a charge of 9s. 6d. for quarter of a ton, and 18s. 6d. for half a ton. These prices cover all the expenses, and leave to the trader about 3s. to cover his cost of living, bad debts, and so on. The operations of our yards last year were not profitable. The items making up that £1 15s. 6d. would include the screened coal at Lyttelton, £1 3s. 9d. per ton; wharfage and railage charges, 3s. 6d.; and 2d. for weighing. I am now taking it from a retailer's point of view. When he has not got a siding he has to cart the coal to his own yard, which costs him 1s. a ton, and the labour of discharging and bagging the coal and reloading it comes to another 1s. The average cost of carting will average fully 2s. 6d. per ton. Then, the rental of the yards will come to 1s. a ton, and that practically brings up his actual cost to £1 12s. 11d. He then sells it at an average of about £1 16s. 9d a ton, but if he rescreens coal the average would not be more than £1 15s. 9d.

33. *Mr. Proud.*] Do not these charges appear to be very high?—It absolutely cannot be done under. There is not a penny in the statement I have given which is not actually paid away in cash. These are the items which make the difference between the ship's price and the dealer's, so

that the dealer selling our coal gets about 3s. of a margin, which is to cover all his expenses of living, his bad debts, and his clerical work. Our effort is to keep the prices down so that we can compete with Newcastle coal. At present selling-prices of Newcastle coal we can compete successfully against them.

34. Can you explain why such large quantities of Newcastle coal are imported into this country?—I think the amount is only about 120,000 tons. I found out some time ago that included in the 120,000 the Union Company use for themselves between 70,000 and 80,000 tons of Newcastle coal. That is consumed by their own steamers. Besides that they use between 80,000 and 90,000 tons of West Coast coal. That 70,000 to 80,000 tons has to be deducted from the aggregate Newcastle brought to the colony. Then the gas companies at Dunedin and Auckland and some smaller ports use Newcastle coal, so that the aggregate of Newcastle coal consumed in the colony is not so much as people imagine. There may be about 50,000, of which more than one-half is used for the purpose of gas-making and at the sugar-works at Auckland, and similar concerns. With fair appliances we can stop that consumption so far as our New Zealand coal is suitable. You can get the freight to Auckland almost as cheap from Newcastle as from Westport.

35. Do you consider the gas coal on the West Coast superior to that of Newcastle?—There are only one or two coals fit for gas on the West Coast, as there is too much sulphur in them. The Gas Company here uses Westport coal, also at Wellington and Auckland, but the Dunedin Gas-works, which belong to the Corporation, have just accepted a contract for Newcastle coal.

36. But the production of gas per ton is much greater with West Coast coal?—The proportionate results are better, but there are one or two coals from Newcastle that give very good results.

THOMAS BROWN examined.

1. *The Chairman.*] What are you?—Branch manager in Christchurch for the Westport Coal Company.

2. Would you describe the system upon which you dispose of the company's coal in this provincial district?—Yes. The coal comes round in the Union Company's steamers generally, and we sell it on trucks, as a rule, in Lyttelton.

3. At what price?—It depends upon the quantity—from £1 5s. to £1 6s. for coal screened at the mine. For the unscreened coal it is 19s. 6d. to £1 1s., and the small from 16s. to 16s. 6d. There are some existing contracts at 15s. 6d., but I am giving you prices that will rule from the 1st April next, c.i.f., Lyttelton.

4. What was the smallest contract price?—15s. 6d. for small coal; but there is one existing contract at 15s.

5. Does the small coal include the slack?—It is the slack. Except Lyttelton, there is no port in New Zealand where they screen the coal. It is screenings, or unscreened "nuts," as it is called.

6. *Mr. Lomas.*] Does that include your slack from the mine district?—No; but we have none coming here. We screen nearly all our coal for household purposes here. We make from 600 to 700 tons a week. We get nearly all our coal unscreened.

7. *The Chairman.*] You take it as it comes from the mine?—Yes; we take as much as they can supply, and we screen it here, all except what goes for steam purposes.

8. How much coal do you get out of that?—40 per cent., and 60 per cent. of small—that is, out of face coal.

9. *Mr. Lomas.*] Does that go over a proper bar screen?—Yes. For the coal that we screen in Lyttelton, our price from the 1st April will be £1 7s. to £1 8s. In other words, we charge 2s. a ton for screening the coal at Lyttelton. The mine-screened coal is just the same price as it was before. To supply the trade with household coal entirely free from slack we decided to put up screens. Originally the coal was screened direct from the steamers, but owing to the shortage of trucks we are now discharging the coal into a hulk, and after the steamer leaves, when the railway can supply us with trucks, we screen and forward the coal to Christchurch. It costs us 1s. 7½d. more than what it cost us when we screened it direct from the steamers. The scarcity of railway-trucks had added a cost to the coal of 1s. 7½d. a ton, both for slack and household coal. That is for the actual labour caused by the shortage of trucks. In 1899 our average was 11d. per ton for labour in working that coal, and in 1900 it was 2s. 6½d. We are getting nothing more out of it, and are simply charging what it costs us. Our charges are c.i.f., Lyttelton. The railway people charge 1s. a ton for weighing. They do not charge the cost of weighing the truck, but charge 1s. a truck for giving you the weight. The custom is that all coal shall be sold according to railway weights, and unless we pay that shilling we cannot get the railway weights. That, of course, adds an extra cost to the coal after it comes from Lyttelton. Another thing which adds to the cost of coal to Christchurch consumers is the charge made by the Railway Department of 6d. per ton for loading, which only costs the department 2d. per ton, and which the following particulars will prove: Two men are put in each truck to tip or empty the baskets as they come from the vessel; these men, even if paid at the highest rate of labour in Lyttelton—viz., 1s. 3d. per hour each—would only cost the department 2s. 6d. per hour. The average quantity of coal handled by these two men is 15 tons per hour; thus the actual cost to the department of tipping the 15 tons is 2s. 6d., whereas consumers have to pay 7s. 6d. In other words, the department makes 4d. per ton profit out of these men's labour; so, although the railway-haulage to Christchurch is 2s. 6d. apparently, it really earns 2s. 10d. per ton. Thus, if the department were to charge the actual cost of labour paid for loading there would be a saving of £25 on each cargo. Our weekly steamer brings to Lyttelton 1,500 tons, which, at 4d. per ton, comes to £25. I produce a tabulated statement showing the total sales of Westport coal landed at Lyttelton, from 1897 to 1900:—

Year.	Screened Coal.	Unscreened and Small.	Totals.
	Tons cwt. qr.	Tons cwt. qr.	Tons cwt. qr.
1897	16,667 17 0	30,951 18 2	47,619 15 2
1898	19,681 11 1	34,190 10 2	53,872 1 3
1899	21,362 6 0	49,466 9 2	70,828 15 2
1900	19,271 3 2	50,942 3 0	70,213 6 2
	76,982 17 3	165,551 1 2	242,533 19 1

Thus showing 31½ per cent. screened coal and 68½ per cent. of unscreened coal.

JOHN ALEXANDER MCCULLOCH examined.

1. *The Chairman.*] What are you?—I am president of the Canterbury Trades and Labour Council. My Council some time ago considered the setting up of this Royal Commission on the coal-mines of the colony, and decided that it should be represented for the purpose of having the views of the Council stated with regard to the State ownership of the coal-mines of the colony. For some years now the whole of the labour organizations of the colony have favoured the State taking over control of the mineral wealth of New Zealand; and, for the purpose of having that decision stated and giving reasons why we think this control should take place, I have been sent here to-day to give evidence. In the first place, we think the workers engaged in the mines would have better conditions provided for them to work under, that better supervision would be exercised, and, consequently, that there would be less danger to life and limb through explosions and other causes. We consider that the coal could be got much cheaper on account of the more effective methods which would be adopted by a strong management and finance such as the Government would establish. Most of the mines of the colony now have been crippled through the want of capital, while this would not be the case were the mines worked by the Government. The price of coal would be regulated, and not be subject to fluctuations as it has been in Christchurch, where people have had to rush about all over the place for coal simply because there was none in the market. Government would see that the people were not starved for the want of coal if they were running the coal-measures themselves. We also think that if the Government had control prices would not be run up, because some foreigners—probably the Japanese—had given the mine-owners an order for coal; the colony would not raise the price to their own people because the Chinese or Japanese were wanting coal, or, in other words, because there was an undue demand for coal. We have looked up several of the reports, which I have brought with me, and find that the lowest tender from the Westport Coal Company to supply coal to the Railway Department was 6s. 4d. per ton.

2. What was that for?—For use on the railway. We think the difference between that price and what the consumer has to pay is too great, seeing what it can be produced for. As a matter of fact, we know that it was proved before a parliamentary Committee last year that the price paid for hewing the coal was only an average of 2s. 3d. per ton.

3. That is absurd. You might just as well take the producing cost of candles or any other commodity, and say they should be sold at cost price?—We think that, with the management such as would take place under the State, we should not be called upon to pay the high price we have to pay at the present time. My private bills show that I have been paying 19s. 6d. per half-ton, and I and the party I represent think the price is too high, and that if the State controlled the output the profit would go into the pockets of the consumers. The Railway Department would then see the necessity of remedying the state of things complained of in connection with the carriage of the coal. I am here to impress the Commission, if I can, with our views on the matter. After mature consideration extending over some years now, we have decided that, in the interests of the people of the colony, it is desirable that the State should take over control of the coal-mines, or, at least, they should see that we are not starved for want of coal as we were last winter in Christchurch on account of the bungling which took place, and which would cease if the Government took over some of the mines. Another reason why we think the State should take over the control is that in the Railway Statement brought down to Parliament last year by the Hon. Mr. Ward it is stated, under the head "Unclassified Expenditure—Fuel and Water," that a total amount of £73,000 was expended. It was also stated that the Railway Department this year would require 110,000 tons of coal, which we consider a strong reason why the Government should take over the mines of the colony and supply their own coal—that they should hew their own coal and supply it to themselves. We think it is not a fair thing that the profits—and, of course, there must be a profit or the mines would not go on—should be reaped by private individuals. From our point of view it is equally bad to have people running mines at a loss if we are reaping a benefit from the mine-owners' capital. We are equally desirous not to make a profit out of them.

4. *Mr. Proud.*] You think the coalfields should be the property of the State and be administered by the State?—Yes.

5. That a natural geological deposit of such great value should not be in the hands of private people?—Yes, and that it should be utilised for the benefit of private companies. That is why I am here to impress on the Commission the desirableness of a recommendation in that direction Having expressed the views of the organized labour of the colony, I would like to mention a few opinions of my own, which have not been considered by the workers as a whole. I think that, in addition to the nationalisation of the coal-mines, depots should be established in the various centres where the coal could be retailed to the people.

6. That is an inevitable consequence, as well as the inauguration of a line of steamers to carry the coal?—Yes, but they might not go so far as that.

7. In that case the Government would become the distributors?—I would not care if the Borough Corporations did it so long as the public were secured against such a famine as threatened us last winter. I might also mention that in the coal report for 1898 the total output of coal of all sorts was given at 907,633 tons, being an increase on the previous year of 63,320 tons. There were 177 mines in operation as against 160 mines in 1899, a decrease of seventeen. We think they would be considerably decreased now if the State took over the mines and provided better facilities. All the mine-owners complain, with one or two exceptions, that the facilities now offered are not such as to give them an opportunity of utilising all the coal they could put out. We maintain that if the mines were in the hands of the State those facilities would be given.

8. *The Chairman.*] Do you go so far as to advocate the resumption by the State of the mines?—Yes; at a fair valuation.

9. Have you considered that many of the mines are on freehold property, and that an enormous sum of money would be required before the State could resume possession of them?—We have considered that, and know that enormous sums of money would have to be given. We considered the matter twenty years ago, when the Blackball Company started. I was asked to take shares in it. They were originally £5 shares, but they bounded up to a very much higher price than that. They were bought in high places in England, but a decline set in, and a great loss of capital resulted through the speculation that took place.

10. Have you any idea of the amount of money which has been invested by the Westport Coal Company?—I cannot say that I have; but I am perfectly satisfied that there is nothing that need appal the people of the colony if they desire to take the mine over.

11. You not only propose to take that mine, but to take over all the other mines?—Yes; where they are worth taking over; but there are a lot that are not worth taking over.

12. *Mr. Proud.*] You think that, if the Government took over the whole of the mines, they would not require to work many of those small mines?—No. Of the 160 mines working a few only of them pay. But if we got one good mine we would take it and be thankful. But we have affirmed the broad principle that the mineral wealth of the colony should be nationalised.

13. *The Chairman.*] Do you include gold in the mineral wealth?—Undoubtedly. That is the broad principle we have accepted, but, as reasonable men, we do not think it can be brought about at once; but we do think that the time has arrived when one or two of the mines should be nationalised, simply as a means of protecting the people.

14. *Mr. Proud.*] You think that coal should not be considered in the light of ordinary merchandise?—No.

15. *The Chairman.*] But you include gold?—Yes, in the broad principle that the mineral wealth of the country should belong to the country.

16. *Mr. Proud.*] Would it not do away with private enterprise?—Quite possibly; and it might be desirable to do so too.

17. It is an abstruse subject?—It is a large question, and it is not going to be settled in a week or two, I admit; but we, as the workers of colony in council assembled, have taken up the position that it is desirable, and I am here to-day to impress that on the Commission, and in order to see if something can be done in the way of placing some, or one, of the mines in the hands of the people of the colony. Look upon it as an experiment if you like, but it certainly would be desirable from the point of view that last winter our coal-dealers were at their wits' end to supply us with coal.

18. What was the highest price you paid?—19s. 6d. per half-ton, but our coal-dealer was generous enough not to charge any more.

SPRINGFIELD.

Monday, 1st April, 1901.

William Cloudesley examined.

Witness: I am hotelkeeper at Sheffield. I am in want of coal—in locality there is hardly any. I have a lease of 40 acres and have put a drive in—one 15 chains from hotel. I have a 16 in. seam and am driving for a larger one. I have only just opened it and got 2 or 3 tons. I know of a 14 ft. seam semi-bituminous coal at Broken River, one mile and a half from Midland Railway-line. I and Williamson and McDonald hold coal leases: we have paid rent for it twelve years. We have done some boring—60 ft. and 70 ft. in three or four places; got on coal in one bore, and a dozen outcrops. I have a piece here and will show it. I packed 3 tons eight or nine years ago and sent it to Christchurch—said to equal any steam coal except Westport. I have a drive 200 ft. in mine at back of house.

Matthew Naismaith examined.

Witness: I am a miner working on Midland Railway on banks Broken River. In my opinion the seam of coal the Springfield Company bored has not been seen at the outcrop on the surface yet. I think it is to be found by putting down a prospecting bore on the Government Reserve at Springfield. This is a reserve of 40 acres at Springfield. The railway cuts through the centre of it as it goes to the Springfield Coal Company's mine. We should think we would have to bore 100 ft. to 120 ft. to strike the coal. It would be a lignite of same quality as coal found at Springfield. I know of no bituminous coal in this district except on the Daylesford Mine, about three miles and a half from Springfield. I prospected it about twenty-two years ago, and took a few tons from it. It was a true coal. I do not know what extent there was. A Mr. Hamilton put down a bore in Government Reserve about twenty years ago, but did not go deep enough—he did not get coal. I worked in Springfield Mine five or six years ago sinking a shaft. I did not hew coal.

TUESDAY, 2ND APRIL, 1901.

The Commission visited Horsley's mine, Springfield. Mine said to be exhausted. No coal sold; not sufficient raised for their own use in tile-works. Two shafts—two working-places—poor quality coal. Great scarcity of coal in district, probably good supply underground. Wasted by mismanagement years ago.

HOMEBUSH.

TUESDAY, 2ND APRIL, 1901.

THOMAS BROWN examined.

Witness: I am mine-manager at Homebush Colliery, owned by Mr. John Deans. I have been in charge twenty-eight years. I have opened the mine, except 1 chain of driving; the drive is now in 40 chains. We took out 6,000 tons last year. We employed eight men in mine, and two drivers, and four putting in fresh drives. We are taking out pillars from where coal tapers off. We are taking it all out and the surface is falling. There is good natural current from drive and upcast shaft, which goes from end of rise to surface, and is only 6 ft. deep. I do not know if we shall work dip. We have pretty well worked the coal out on rise. It may last at present output three or four years. Most of coal goes to Christchurch. We have extensive potteries which take 20 tons a week. The total output is 25 tons a day. I do not know what coal realises in Christchurch, but we sell it at pit-mouth tip-head at 14s. a ton. Railway-haulage to Christchurch is 4s. 6d. There have been two accidents, the last one seven years ago: a piece of coal fell on a man, a miner, and killed him; the former was many (twenty-two) years before that: some trucks ran over a boy and killed him. There have been no other serious accidents. The Inspector of Mines was here on the 8th June, 1900. The provisions of Mines Act are carried out. I think the output will be increased and dip worked, but it will require a pump. The seam is 7 ft. 6 in. to 8 ft. clean coal—no dirt, no black damp, no gas. The present system has always been my system in working mine. To-day is good sample of average ventilation. We leave very little slack in mine, perhaps 3 or 4 per cent. We use most of the slack for engine for potteries. The pillars are 10 yards thick and we are getting all the coal. We leave a chain on each side of road to keep it. We have second road out by upcast. We have met some faults in main drive and have gone through them. The roof is good and does not require much timber. I know a big seam in Bush Gully, on Dean's land. It would be about two miles from present mine. We could not strike it from our dip. I do not know whether it is the same seam; it is about the same quality. The big seam is about 14 ft. thick. We have driven in only 3 or 4 yards. We drove on bottom and took it up to roof. The dip is 1 in 3. Fireclay is there; I did not examine it. We have fireclay in present workings but do not use it. The fireclay used in pottery is got from separate drive up gully.

TARANAKI DISTRICT.

NEW PLYMOUTH.

SATURDAY, 20TH APRIL, 1901.

GEORGE HERBERT STUBBS examined.

Witness: I live at Waitara, and am the present proprietor of the Mangapapa Mokau Coal-mine. I hold under a lease from Dr. Robertson and Mr. Vickery, of Sydney, the present owners. It consists of 4,240 acres. It is known as Mangapapa B. I have nothing to do with the Upper Mine. I have worked the property myself since the 1st October, 1898, but it is three years and a half since I became actively employed in connection with the mine. I was at Waitara for a year, doing clerical work in the office. Two years and a half ago I took charge of the mine. About 20,000 tons had then been taken out. It has been fairly worked. Since then I have cleaned up the whole of the mine, widened the tunnel, improved the air-circulation so as to give good ventilation in all the faces. The main drive is driven 22 chains from the entrance. It is driven straight into the hill. The coal shows evenly and uniformly in all the working-faces. The roof is particularly good, and very little timber is used. During the last two years and a half I have taken out very nearly 8,000 tons. During that time the mine has altogether been shut down for about six months. The present output is about 100 tons per week. I have seventeen men employed, including the manager. There are seven men actually hewing on the face. Day-wage men are paid 9s. per day; pieceworkers, 2s. 9d. to 3s. 4d. per ton, varying according to the thickness of the stone lying between the two seams; 4s. per yard for driving stentons. The men do no trucking, only filling. The pieceworkers average about 10s. per day. Within the last six months they have been able to work nearly full time; before that it was somewhat erratic owing to want of steamers. We sell the coal chiefly at Waitara. We take it in the scow from the mine itself. The scow carries 110 tons average load. She has to be towed over the Mokau bar and up and down the Mokau River, also into Waitara unless the wind is favourable. We often tow her all the way to Waitara. It practically takes two boats to take a cargo—viz., steamer and scow—but the steamer carries about 40 tons. We pay 8s. per ton for what the steamer carries herself, and £2 every time they tow the scow. We tow the scow up the river to the mine with a launch. I reckon the cost of transit of the coal from the mine to Waitara at 8s. per ton all round. To this must be added 1s. per ton wharfage at Waitara. We sell the coal at Waitara at £1 per ton free on the trucks—that is, unscreened coal. For coal screened at Waitara we charge £22s. 6d. That gives us 11s. for coal at the tip-head. This would pay very well if there was enough of it. But at present the coal is costing us 8s. 6d. per ton at the tip-head. The

freezing-works at Waitara, when running, take about 25 tons per week. Thirty tons per week would supply the rest of Waitara. The balance is sent to New Plymouth and elsewhere. The railage to New Plymouth is 1s. 9d. It is carried as brown coal. In Taranaki, where the coal has a monopoly, we could dispose of 1,000 tons per month. Very shortly, we expect, we shall work up to that. I am now just starting to again work up the trade in Wanganui. It will be used chiefly for household purposes. It will be taken by boat from the mine to Wanganui. The freezing-works both at New Plymouth and Waitara use it. About two years ago Mr. Jackson, the locomotive engineer for this section, made a test, but considered the coal was too soft to stand the very strong blast required for locomotives to keep a high pressure of steam. A steamer is now being built in Sydney, but she will not be sent until some snagging is done to the river. It would cost, I think, about £1,000 to put the river in order. That would suffice to keep a snagging-punt permanently there. The steamer being built is 100 ft. on the keel, 22 ft. beam, and 8 ft. 6 in. draught of water when loaded. At present we cannot work boats regularly to the mine which draw more than 6 ft. 6 in. We do load boats drawing 8 ft. 6 in., but at the spring tides. I wish to point out the necessity for preserving the bush which now exists on both sides of the river. Unless this is done the banks will cave in, the river-bed widen, and shoals form, and the river become full of fallen timber. The mine is in charge of a duly certificated mine-manager, who has been in charge twelve months. I am not a practical coal-miner. My instructions to the mine-manager are to do all things necessary for the safety of the men employed, and to carry out the provisions of the Coal-mines Act and Regulations. There has only been one accident in the mine since I took charge. A man was cleaning the roof, and a piece fell on his thigh. His blood was in a bad state, and he died in the hospital about five months afterwards. Have never heard of the coal falling. The miners are paid for unscreened coal. It is filled with a shovel. I lose 20 per cent. on the screens at the tip-head. The slack is burnt in the waste-heap. In addition to Taranaki District taking 1,000 tons per month, I think Wanganui will soon work up to 500 tons a month, and also Kaipara. I have sent a few cargoes of the coal to Wellington, where it has sold very readily. With a regular service the freight to Wellington would be about 10s. The wharfage at New Plymouth is 1s. 9d. per ton; at Wanganui, 1s.; at Wellington, 1s. At times I have, owing to snags, to barge the coal eight or ten miles down the river. This makes a difference in the cost. I feel quite sure, if the river were snagged and a little improvement made at the Heads, we could get out as much coal as we could dispose of. The river is the chief obstacle to success. The monthly pay-sheet has, for the last six months, averaged between £140 and £150. We suffer at times from the absence of railway-trucks at Waitara.

By Mr. Proud.] The calorific power of Mokau coal compared to Westport is said to be 10 to 12. The small coal could be used for brick-burning, but it does not pay to tranship it.

By Mr. Lomas.] The mine is worked on the bord-and-pillar system. The bords are 18 ft. wide. We leave 18 ft. thickness of pillars. The stentons are 45 ft. apart. I have taken no pillars out of the mine. There are about ten sealed-off bords on the dip, and about twenty on the rise. They are all standing. I have never come across any soft coal in any of the working-faces, and have only come across the one fault—a 6 ft. down-fault.

HARRY MAY SKEET, District Surveyor at New Plymouth, examined.

Witness: I produce a plan of the Taranaki Land District, showing coal-outcrops spread over 385,000 acres. The Mokau field is on the Mokau River, which is easy of access by suitable boats. The Stratford route to Auckland passes through this coalfield in the Tangarakau and Wangamomona country for sixteen miles altogether, as shown in red on the plan.

WILLIAM THOMAS JENNINGS, M.L.C., examined.

Witness: I reside at New Plymouth. I know the Mokau Coalfield. I have been there on three occasions. I pointed out to the Government the advisability of the Commission visiting the Mokau Coal-mines, and, in conjunction with the member for the district, made further representations, and I have just visited the mines in company with the Commissioners. My reasons for so doing were the immense coal-deposits which exist there, and that it would be to the interest of the general public that as much information should be circulated about the deposits as possible. I quote from the report of Mr. W. Blanch Brain, mining engineer, who reports favourably on the property, quality of coal, facilities for working, conformity of strata. Also Mr. A. G. French, who states there are seven workable seams, from 4 ft. to 10 ft. thick, semi-bituminous coal. I produce extracts from his report: "This property is situated on Mokau River, fifteen miles from Heads. It is known as Owen's Manga-awakino, No. 1 Block. It is below the Mangapapa and Mangoira Blocks, and contains 4,700 acres, and is reported as being coal-bearing throughout. Mr. J. G. Snelsus, F.R.S., reports very favourably on the Mokau coal." I wish to direct the attention of the Commissioners to the price of household coal in New Plymouth. Westport coal is £2 2s. per ton booked, and £2 per ton cash. The present Mokau coal which is supplied here is £1 14s. Although Mokau coal is quoted in this morning's paper as at £1 8s. per ton, I have recently paid for Mokau coal at the rate of £1 14s. per ton. The high price of coal is owing to the difficulties of transit. Mokau is a harbour only workable by shallow-draught vessels. The present workings are twenty-three miles up the river. The cost of the coal would be decreased, in my opinion, if the Mokau Harbour were improved. I am strongly of opinion that the cost of coal should be lessened to the consumer, and I think that a State-owned coal-mine would have a tendency in that direction. Naturally, I do not specify any particular mine or district. In my opinion it is immaterial where the State-owned mine existed. One great reason that so little is known about the Mokau Coalfield is its inaccessibility. But that is being lessened owing to the opening-up of the country, and better facilities for transit by sea are being provided. Mr. French

estimated that the cost of coal f.o.b. Mokau River would be 5s. 3d. per ton. A vessel carrying 300 or 400 tons could go up to Owen's Landing if it were not for the bar of the Mokau River. All the seams have sandstone roofs. This mine is very favourably situated for economic mining. Very little timber is required. If the bar were improved I think the Mokau coal would hold its own in the market. We prefer it in our household to the Westport coal.

FRANCIS PEACOCK CORKILL, Land Agent, examined.

Witness: I have resided here for twenty years. I first visited Mokau in January, 1882. Nothing was then being done with regard to coal, the country being then closed to Europeans. We went up the river in a canoe by favour of the Natives. Since then the country has been prospected in a spasmodic sort of way. I believe the Mangaroa Block is now held by some European under lease from the Natives. The coal market in this district is supplied by the west coast of the South Island, supplemented by what is obtained from Mokau. Much larger quantities of Mokau coal could be used if procurable. Westport coal is about £2 5s. per ton. Mokau coal, when obtainable, ranges from £1 5s. to £1 15s. This would be for small quantities at retail price. No other coal is used in New Plymouth. As a household coal I prefer Mokau coal, irrespective of price. The border coal from the West Coast goes further, but Mokau coal is very clean, gives a good heat, and is more economical than West Coast coal. If regular supplies were obtainable the consumption would be largely increased in our district. The dairy factories alone would consume a very considerable quantity. They prefer the Mokau coal at the price, if obtainable. The quality has very considerably improved since Mokau coal was first put on the market. In my opinion it is hopeless to expect land carriage for this coal for many years to come—not until the field is tapped by some line of railway. I think that, with a little improvement to the river, and a better class of vessels, such as are now being constructed, the output will be greatly increased, and the price lessened. In my opinion there has never yet been a suitable boat to work the river. It is impossible to work the river with a boat drawing more than 7 ft. of water. It will require a class of vessels of shallow draught, great carrying-capacity, and strong power. The freshes in the Mokau River are at times very strong.

ALFRED JONAS examined.

Witness: I am master of the scow "Surprise," trading between Mokau, Waitara, and New Plymouth. I have been working the Mokau River since 1897. At good tides a vessel with 8 ft. draught is the largest that can safely negotiate the Mokau bar. The scow has to be towed in and out. It carries about 108 tons. I reckon the freight at 8s. per ton from Mokau to Waitara. Towage amounts to £8 a trip—£4 in and out of Mokau, and £4 in and out of Waitara. The steamer "Manakau" can carry about 40 tons. We have to be towed by a steam-launch from Mokau to the mine. The towage amounts to about £5 a trip, up and down. The river is dangerous, owing to the number of snags, I think £2,000 would be sufficient to clear the river thoroughly of them. In ordinary times we only have about five hours within which to work the river. It is possible to go up the river two hours and a half before or after high water. But for coming down with a vessel drawing 8 ft. there is hardly a margin of one hour. The banks of the river are now covered, except in one or two places, with original foliage to the water's edge. If the bush was cleared there would be a grave danger of the banks caving and flats forming, with a corresponding decrease in the depth of water. As long as the bush is undisturbed the banks are safe. At Kelly's Mill, where the bush has been cleared, the banks have already fallen in and shoaled the river.

By Mr. Quilliam.] I have been in the coal trade for the last twenty years—that is, I have been carrying coal. I have had an opportunity of judging the different qualities of coal. The Mokau coal is the best I have seen for household purposes. I have used it for three years as a steam-coal. During that time I could get only the very small coal. The engineers have never complained. It has always been satisfactory. It compares favourably with all other coal used.

By Mr. Proud.] I reckon she ought to make about thirty trips a year. If a training-wall was made at Mokau on the south side and the river cleared, the danger would be lessened, and the river could be worked for a longer period before and after high water. The quick despatch would be a great advantage in making the trip. At present I spend most of the time waiting for an opportunity to get out of the river.

By Mr. Lomas.] The entrance is about 50 ft. wide. That is the channel. It sometimes gets up to 60 ft., but not often.

By Mr. Proud.] They can load the "Surprise" in a day at the mine. If there was an improved shoot they could load in an hour.

By Mr. Lomas.] The river is most shallow between Owen's Landing and the present mine.

JAMES HENRY QUILLIAM, Solicitor, examined.

Witness: I am a member of the firm of Govett and Quilliam. The said firm are the legal advisers for New Zealand of the owners of the Mangapapa A and B Blocks. I have been conversant with the circumstances connected with this property for the last seven or eight years. It was originally owned by a New Plymouth company, who commenced to work it about fifteen years ago. It was then sold by the mortgagee of the company to the Mokau Coal-mine Syndicate (Limited), a company formed in Scotland, with a capital of £10,000. This company began operations about 1895. It lost two steamers on the coast, not near the Mokau. They suspended operations in 1898, having lost all their share-capital and incurred large liabilities. I attribute their failure, firstly, to the capital being too small, and to the loss of the steamers, very largely through mismanagement due to inexperience. An order was made to wind up the company by the Court in 1900, and its affairs are now in liquidation. I was appointed liquidator, and am now winding up the company. The property of this company consisted of Mangapapa B Block of 4,240

acres Native leasehold, and was purchased from the mortgagee of the Mokau Syndicate by its present owners, the Taranaki Collieries (Limited). The purchase was completed in July, 1900, prior to the liquidation. The price was £6,000. In November, 1900, the present owners acquired the lease of another part of Mangapapa B, known as Mangapapa B No. 2, containing 8,167 acres, for which they paid £7,000. (The Upper Mine is situate on this property.) The last-mentioned block was acquired from one Hugh Irving, the lessee from the Natives. The term of the lease was for forty-two years, with a right of renewal for another forty-two years. (Mangapapa B No. 2 Block is same as Mangapapa A Block; *vide* Dr. Robertson's report.) The Taranaki Collieries (Limited) has a very large capital. They have, besides £13,000 for purchase-money, expended about £2,000 on a scow, and are now building a steamer, almost now complete, at a cost of £4,500. I understand that the present company intend building a number of steamers and thoroughly developing the trade. At the present time the mine is worked by Mr. Stubbs, under a revocable license from the syndicate who formed the company.

NELSON DISTRICT.

PUPONGA.

TUESDAY, 7TH MAY, 1901.

JAMES HENRY YOUNG examined.

Witness: I am the mine-manager at Puponga Coal-mine. The owner is Mr. Joseph Taylor. I have only been in charge eight weeks. We are now laying the tramway and driving two levels. There are twelve men employed. We have driven 400 ft. on No. 4 level and 60 ft. on No. 8 level. We put out 46 tons of coal last month. It was taken by scow from Puponga Wharf. We have 400 acres in leases. No. 8 level is the haulage-level. The levels are a chain apart. We work on the bord-and-pillar system. The pillars are 16 yards by 25 yards and the bords are 15 ft. We shall timber close. We work across the seam, which dips 1 in 3. The stentons are 4 yards wide. We shall work bords on the level from a rise-heading. We shall ventilate by a fan. We can get the coal hewn at 2s. 3d. per ton. We shall use 10 cwt. trucks. We shall not require to use powder or wedges. We shall get 60 per cent. of round coal. We shall get 99 per cent. of the coal in the hill. There may be danger from fire. I shall take all the clay out, and the small coal, and be ready to seal the place up. The coal is superior to Westport coal for household use. The mine is well situated for supplying Wellington and other large markets.

PAKAWAU.

TUESDAY, 7TH MAY, 1901.

JAMES WALKER examined.

Witness: I am manager for Caldwell and Sons, the owners of Pokawau Mine. There are eight men and a boy employed on this coal, and three truckers. We turned out 400 tons of coal last month, but the trade is not steady, owing to want of vessels to carry it in. The mine has been open five or six years. The drive is 150 ft.; the ventilation is natural. The price of the coal at Pakawau Wharf is 15s. for household coal and 10s. for nuts. We wash the slack away and send it to the river. The mine is one mile and a quarter from wharf, and there is an iron tramway. The lease is 39 acres, from the Crown, and the owners have applied for another 100 acres. The section of the seam is 2 ft. 6 in. to 4 ft. The dip is 18°, or 1 in 3. There are two thin bands of clayey pug running through the seam—these bands are from ½ in. to 8 in. in thickness. The price we pay for hewing is 1s. 6d. per truck, or 4s. 6d. per ton. We work on bord and pillar. The bords are driven 18 ft. wide, and the pillars are left 27 ft. to 30 ft. wide by 66 ft. long. No pillars have been taken out yet. The workings will be taken to the boundary before any pillars are taken out. The trucking is by hand. It is fourteen months since the Inspector of Mines was here, but the Assistant Inspector, Captain Richards, was here three times during the past year. The coal is bituminous, and the top part of seam is good for coking. I think there is a large coalfield in the solid country at the back; the seams dip to the eastward.

NELSON.

SATURDAY, 11TH MAY, 1901.

ALFRED PEART examined.

Witness: I am the secretary of the Cape Coal Prospecting Company. This company was formed to prospect a lease taken up in my name. The leasehold is situated at Puponga. The lease has been granted about two months, but my application for it has been lodged nine or ten months. The area is 400 acres. It lies to north and west of J. and A. Taylor's lease. It takes the coal to the dip of Taylor's seam. We have spent about £400 in prospecting the shallow ground. We have not found the seam which is on Taylor's area. In sinking a shaft 66 ft. deep we passed through four small seams, the thickest being 2 ft. That shaft is 20 chains from Taylor's drive, and close to our boundary. We have found nothing better than that. We found that the seams through which we passed were dipping more to the north than the seams in Taylor's area. The exact dip was west-north 20° east. We also sunk several shafts from 10 ft. to 20 ft.—sixteen shafts in all. These were to test where the outcrop appeared likely to be. We found thin seams in almost every one. We failed to find outcrop of main seam. We are at present negotiating with

a company in Wellington to prospect for us by boring. If that does not come to anything we intend to increase our capital and get a boring apparatus. The reason we did not sink 66 ft. shaft deeper was that we struck water, and we were unable to keep it down. I wish to object to any one—individual or corporation—obtaining exclusive rights to waterway or harbour. There seems to be a chance of some one person or company obtaining such a right and blocking the harbour against others. If Taylor's seam extends to our lease there should be about 4,000,000 tons of coal in our 400 acres, besides coal supposed to exist outside ours and Taylor's leases. My company is not registered, but is an association of twenty-six individuals. We began work in November last, and continued up to about six weeks ago. We had twelve men employed for a short time, but generally about six men at work.

By Mr. Proud.] We expect to get thick seam at greater depth. The present place of shipment is the best. We shall bring a tramway to it. The highest rise of the tide at Puponga at spring-tides is as much as 12 ft.

By Mr. Lomas.] We had Mr. Bishop's opinion on our lease; it was favourable. The seams were from 12 ft. to 15 ft. apart in the shafts. There was a little shale in connection with some of the seams. I have seen the seams Taylor is working, and the stone in the middle and in the roof. We came across shale and stone of a similar description in the shafts we sunk. We should have to construct a mile or a mile and a half of tramway. We are nearer than Taylor to the port. The seams we have struck are of good quality, similar to Taylor's, but I could not say if it was a lignite or bituminous.

Mr. James Bishop was present and was asked to give evidence, but objected to do so on the ground that he had reported confidentially to those who had employed him, and such report was under consideration. The Commissioners decided not to press Mr. Bishop, under the circumstances, to give evidence.

Frederick Adolphus Bamford examined.

Witness: I was secretary of the Enner Glynn Coal Company (Limited). The capital was £5,000 nominal—£2,000 subscribed, £1,798 paid up. We sold 1,000 tons at £1 7s. a ton—that was during the company's existence. Before that time there was coal sold. The shaft was almost vertical at times, and at times it inclined, as the seam varied. The seam averaged about 4 ft. 6 in. all through. We raised the coal by a horse-whim and two buckets. We sold about 90 tons a month at the most. The fire had been burning three or four days before it was found out. I was liquidator of the company; 17s. per share was paid up and 6d. return.

Alexander O'Brien examined.

Witness: I am the owner of this property on which the coal has been found—I am the freeholder. I own 2,200 acres. There has been some work in connection with the coal. Nearly 2,000 tons were mined and sold. A registered company was formed to work it. I was to get royalty of 1s. a ton. I actually received about £75 for royalty. The name of the company was the Enner Glynn Coal-mining Company; registered capital, £2,000. Frederick Bamford was secretary. It was wound up after the fire occurred. There was a main prospecting-shaft 338 ft. deep, which went through a vertical seam of coal all the way. There were drives from the shaft. When we had obtained about 2,000 tons of coal the mine caught fire, and the Inspector, Mr. Tennent, ordered it to be flooded. When the fire occurred there were five men employed—three below and two on the surface. A man named George Wise was mine-manager. He had no certificate. A man named Bennett had been in charge to within six months of the time when the fire occurred. He was discharged; he had no certificate, but held a permit from the Inspector. Wise held a permit from the Inspector to manage the mine. We sold the coal at £1 7s. in Nelson—that was what the company got for it. The company endeavoured to bale water out, but found the drives were caved in, and gave up the task, and was voluntarily wound up. The paid-up capital, £2,000, was lost. I am now the absolute owner of the property. The fire occurred in June, 1898, and the company was wound up 28th February, 1899. The shareholders had paid out 17s. per share, and received back about 6d. The greatest thickness of seam was 14 ft., and the average was about 8 ft.

Samuel Jickell examined.

Witness: I am city engineer at Nelson and manager municipal gasworks. We pay for Westport coal, at Nelson, £1 8s. 6d. for screened and £1 1s. for slack. The Anchor Shipping Company are the contractors for the supply of coal. In 1890 the price was £1 1s. for unscreened, and it has gone up steadily ever since. We carbonize from 2,000 to 2,500 tons per annum. We prefer slack, but cannot get it just at present. There is an association now forming to put down a bore through the Mud Flats—a sum of £400 has been subscribed, and we think it should be subscribed by the Government. The Anchor Company has already had the contract for supply of coal.

Joseph Taylor examined.

Witness: I am the lessee from the Crown of a coal lease at Puponga of 100 acres. I am also applicant for 200 acres more, which has been recommended; my wife, Annie Taylor, is lessee of adjoining 100 acres: total, 400 acres. My wife and I have agreed to transfer these interests to certain persons who are forming a company with a capital £70,000. The paid-up capital is to be not less than £12,000, all of that is to be spent in working the mine. £3,600 has been sent to me already for expenditure on the mine. I have sold two-thirds of my own interest to Messrs. Davies, Hayward, and Smith for £553 6s. 8d. for each third—£1,106 13s. 4d. for my share. The parties to whom I sold also pay me the proportion of moneys already expended on the mine. Mrs. Taylor surrenders her share entirely to the party on consideration of their bringing into the company not less than £12,000; the details are not yet fully perfected. The

registered company will take a transfer of the property to themselves. I shall hold one-third of the shares in the company, but I shall not contribute towards the first £12,000 which is to be found, nor will, I think, the persons who have bought my two-thirds interest. I shall have one-third of the profits. I have occupied the 100-acre area since 1895, and have done a good deal of work. We have put a wooden tramway three miles from the mine to the foreshore, and also a small wharf. We hold an agreement with the Collingwood Road Board for the tramway-line laid. We are putting down an iron tramway, to be worked with locomotive; it will cost about £6,000, including rolling-stock and pier. The work hitherto has been on the areas held by J. and A. Taylor. The most important seam we have found is a 10 ft. seam, partly on mine and partly on my wife's lease, and goes into the adjoining 200-acre lease. It is on a dip of about 1 in 3 to 1 in 4, and we have put in three main levels about 15 yards apart, but we do not propose to continue the centre one. No. 7 to No. 4 level is 400 ft., and has an airway to daylight and a rise heading. No. 7 is about 70 ft. The coal retains its average thickness. The quality of the coal is very good; it is a good steam-coal, equal to anything in the market. We have got out altogether and sold 500 tons. We have about 500 tons in stock. We intend to lay tramway, build pier, obtain locomotive and sailing-vessels. We have sailing-vessels now and a sawmill, and probably we shall get a steamer. We do not increase output until we can get a tramway and pier easily. We have been sending away coal at a loss of about 10s. a ton. We sell coal at Collingwood at £1 8s., Takaka £1 10s., Nelson £1 10s. We have sold coal at Puponga f.o.b. at 16s. I paid 6s. freight from Puponga to Nelson. Freight to Blenheim is quoted at 12s., also to Wellington; Patea and Wanganui, 14s. It will be six or seven months before railway and pier are erected, and we are putting out coal in quantity. In the mine we have put in levels. We have put in a number of small drives showing the seam for 50 chains along the line of strike. It is all clean and uniform in thickness and quality. I entirely disagree with sketch shown in Mr. A. McKay's report. I hold that there are seventeen distinct and separate seams in the area. It belongs to the lower zone of the cretaceous rocks. We are not on the fundamental rocks, as the coal-seams are at Westport. Ten of these seams can be profitably worked if the fireclay is utilised; without the fireclay six seams could be worked. I suggest, as amendments of Coal-mining Act,—(1.) Better provision for protecting prospectors for coal. (2.) Distinction in dealing with fields approached by formed harbours and railways and those without such facilities. (3.) Reward for discovery of payable seams. (4.) Distinction between accessible and inaccessible coalfields. We have seventeen men employed in and about mine. Wages last month were £193 12s. 3d.; seven men employed in conveying coal to market, wages £61 4s. 6d.; ten men getting timber, wages £83 18s. 11d.: total, thirty-four men, wages £338 15s. 8d. Other expenses: 130 tons metal rails, £1,950; locomotive, £500; fish-plates, &c., £100; scow, £310; timber, and royalty on timber, £100; blacksmith, saddlery, and sundries, £57; twelve horses and nine bullocks, £40; rent, royalty, travelling and other expenses, £71: total, £3,467. Cost of production hitherto, £2 14s.; sells at £1 14s. We have to fulfil conditions in each lease, and, as we are the prospectors, that is not fair. We claim the right to pass through sand on foreshore so that we can have outlet for our coal. We do not seek monopoly so as to exclude others. I am second-class certificated colliery-manager under New Zealand Coal-mines Act, and first-class advance certificate, South Kensington, in geology and mining and other subjects.

MARTIN LIGHTBAND, Coal Merchant, examined.

Witness: I wish to ask the Commission to recommend a more open-door policy with regard to coal. I cannot buy coal from any of the local companies f.o.b. I can only buy from their own agent in Nelson. The "Oban" can go to Pakawau and buy coal there at 16s., but she is barred from taking it to Nelson—she may take it anywhere else. This is unfair to Nelson, and requires a remedy. If I could buy coal at Pakawau, the price of coal would be 5s. a ton less. I pay £1 6s. for Pakawau coal at railway-station at my siding; I deliver at £1 10s. net.

WELLINGTON.

TUESDAY, 30TH APRIL, 1901.

PATRICK JOSEPH O'REGAN examined.

1. *The Chairman.*] Of what profession are you?—Journalist.

2. You have considerable acquaintance with the coal-mining industry?—Yes; I represented the Buller constituency in Parliament, which I think contains the most important collieries in New Zealand, for three years.

3. And you wish to make a representation to this Commission?—Yes. The chief matter upon which I wish to be examined is what the Government have already committed themselves to—that is, a State colliery.

4. The subject has been brought in incidentally in so many different ways that we will not exclude any voluntary statements made by gentlemen in a position to make them, but we shall not call any witnesses to be examined on the subject?—It has appeared to me for many years that the coal-mining industry is one the Government could embark in with great advantage to the colony. The Government are themselves very large consumers of coal—I understand, to the extent of about 125,000 tons a year, and that quantity, of course, will keep on increasing. Then, it seems to me that, whatever the cause, private enterprise has really failed in connection with the development of the coal-mining industry. There may be differences of opinion about it, but I think the Government could have done much better; besides which, it seems to me to be wrong to contend that by Government embarking in the industry they are interfering with private enterprise. It must be

remembered that private enterprise does not even now exercise complete control. There is dual control, as the Government have to employ a costly staff to compel the coal-mining companies to perform certain conditions, and it is a question not of superseding private control, but whether you will substitute single control by the State for the dual control now existing. It very frequently happens that a private coal-mining company requires concessions from the Government. Take, for instance, the Cardiff Coal Company: they required certain concessions which I think they ought to have received, but which they did not get. There are some people who will say that influences are at work to give concessions to such a company, and frequently, in the clash of interests, the merits of a case are lost sight of. The point I wish to emphasize is that in the case of State control no such difficulty would arise. The Government would necessarily do what the public interest demanded, and any question of private interest would necessarily be excluded. Then, the price of coal in the large cities seems to me to be excessive. I am not going to say that large profits are made by any particular company, for that is evidently not the case; but I believe the present system of distribution, and perhaps of mining, to be at fault. The State could, I believe, adopt a system which would be much better than that followed by private companies. Take the screening processes to which the coal is subjected. In my opinion, so much screening is quite unnecessary, because I notice that in Denniston and Westport the people prefer to use the coal as it comes from the mine. Whether screening can be abolished altogether or not may be an open question, but I am quite certain that some of the screening can be dispensed with. Now, this screening adds to the waste and to the price of the coal. Then, with regard to the shipping of the coal, I think you will agree with me that West Coast coal is exceptionally soft, and for that reason should receive exceptionally delicate handling. Instead of that—well, you have no doubt seen the way it is treated at Westport. The great bulk of the coal is poured down into the vessel's hold from the staiths. These defects were pointed out to the Coal Committee set up by Parliament so late as 1899, every witness agreeing that this system injures the household coal very much. Now, it is reasonable to suppose that the State would at once adopt more advantageous methods of dealing with the coal. These briefly are reasons why, in my opinion, the Government should open a State coal-mine.

5. Have you considered that it would be useless for the State to open a coal-mine unless it provided water-carriage as well?—That is a question that might also be considered. Some years ago, when a member of the House, I induced the Government to set up a Committee to inquire into the whole question, and among the witnesses examined before the Committee was the Hon. (now Sir) Henry John Miller, chairman of the Westport Coal Company. I think he practically says in his evidence that there is reason to believe the freight to be higher than it ought to be; but I am not prepared to say that. It is just as logical, however, for the Government to have its own ships as to have its own railways. The one is as defensible as the other, and I am quite satisfied that it would be much more satisfactory for the public if the Government did provide its own carriage, because it has been said—with what degree of truth I am not prepared to say—that the Union Company has not always made arrangements for the carriage of coal to the best interests of the community, although, I am bound to say, the evidence before the Committee does not verify that. You will see on reference to section 17 of "The Coal-mines Act, 1891," that, in respect of bunker-coal, the vessels have to be loaded at the port in the order of priority in which they arrive; but it does not say that, so far as coal required as cargo is concerned, that that has to be done. One of the recommendations which the Committee made—and on which it was unanimous—was as to the amendment of section 17 of the Coal-mines Act in the direction of making this provision applicable to all coal.

6. Will you tell us how that could possibly be brought into practice: would it not absolutely put a stop to all contracts for the supply of coal?—I do not think so.

7. Take the instance of a coal or carrying company which has undertaken to supply so many tons a month—say, at Lyttelton. A rival to the parties to be supplied at Lyttelton sends his vessel to Westport and Greymouth, and arrives there first and says, "We have arrived first, supply us; never mind the other vessels"?—That would be an exceptional case, and might be provided for. People have said that vessels have been unduly delayed in Westport on account of the Union Company's vessels receiving priority, and that they have had to wait considerably longer. I cannot say that I know this as a fact, but I know the law contemplated something of the kind or section 17 has no meaning.

8. Admitting, for the sake of argument, that it is quite true, can you give any answer to the objection I have stated, that if you amended the law you would render the supply of coal by contract impossible?—I must say that that view of the question has not occurred to me before. It seems to me, however, that Parliament when it passed that Act contemplated some abuse which members wished to stop, and made it applicable to bunker-coal only. When the Committee made the recommendation for an amendment of the section it was practically unanimous.

9. *Mr. Lomas.*] Supposing some party in Wellington ordered 2,000 tons of coal from the Westport Coal Company, and that a vessel had to go to Westport for it. Another vessel goes there without giving any order, but gets into Westport before the other vessel. Would you say that vessel would have the right to get coal before the other one?—No.

10. *Mr. Proud.*] You think they should load in regular turn?—Generally speaking, I should say that vessels should receive coal in the order in which they arrive.

11. *The Chairman.*] That provision opens the door so wide that it would be absolutely useless. All that they would have to say would be, "We are willing to supply you, but we have a contract to keep. Until we have supplied that quantity we cannot supply any one else"?—Your point is that they might urge the sacredness of contract, whether validily or not. But all that, after all, merely goes to show the necessity for additional supplies.

12. The Westport Coal Company, I think, will supply the coal at the foot of their incline at

so much per ton. Instead of opening a State mine, why not take the coal at the incline?—That would not increase the output, which is inadequate to the demand. The Buller Coalfield contains abundance of coal, if we are to go by the official reports; and, if so, it seems to me an additional reason why other coal-mines should be opened. Take the question of haulage-rates, if you increase the volume of export you can reduce the haulage-rate.

13. Do you know any portion of the Buller reserves containing coal that is not being mined now?—I am going by the official reports, and if those are correct the Buller Coalfield contains very great undeveloped resources. But there is coal further north than that.

14. Where?—If I am correctly informed, the Collingwood district contains valuable coal deposits. A deputation waited upon the Minister a few days ago in reference to them.

15. That is the trouble—the supply of coal, and where it is to be got?—I saw in print some time ago that Mr. Park had stated that the whole of the known coal resources of New Zealand did not represent five years of the annual output of Great Britain.

16. About eight months, I think?—I mentioned that to an eminent authority in the colony, and he scouted the idea. Mr. Park's opinion is not supported by the high authorities I have asked in the colony.

17. Which would you prefer to see—a State mine or State distribution?—I should prefer to see a State mine and distribution.

18. *Mr. Lomas.*] Who to distribute?—The Government.

19. *The Chairman.*] You want a State mine, State carriage, and State distribution?—Yes, I should certainly be in favour of all that.

20. You know the Inangahua very well, do you not?—Yes.

21. That district is permeated with coal-seams, is it not?—Yes; there is very good coal indeed in that district, but so far no very large bodies of coal have been proved. Numerous coal-seams certainly exist.

22. Have you any recommendation to make in regard to conserving those areas in which coal is known to exist?—I think that is a very important question. There is a seam in the Reefton district which has been burning some fifteen years, and I have several times brought before the Government the necessity for having the fire extinguished. They sent one officer to report on it, and then asked the Inangahua County Council to bear part of the cost, but I do not know that anything has yet been done.

23. I mean as to preventing the alienation of freehold coal-bearing land?—Most decidedly. I say, without hesitation, every area known to contain coal should certainly be reserved for ever.

24. The difficulty is in satisfactorily determining what is coal-bearing and what is non-coal-bearing land, otherwise the whole locality would be locked up, as was done by the Midland Railway Company?—There is no need for that. The Government could allow the land to be used for agricultural or pastoral purposes while reserving the coal below. I understand the Land Act of 1892 would apply to that land, and wherever that Act has been brought into operation the majority of the settlers prefer the lease-in-perpetuity system. The alienation of gold-bearing land does not carry the right to the gold.

25. In theory it does not?—In my opinion, the same provision should be made with regard to coal, but the theory should be carried out in practice.

26. *Mr. Proud.*] You think all the minerals should belong to the State?—Most decidedly. There can be no two opinions about that; and the surface is the key to the minerals, and should be so treated.

27. And that the coalfields should be the property of the State, and be administered by the State?—Of course.

28. *The Chairman.*] Do you think that State storekeeping should stop at coal?—That, of course, is a very large question. He would be a very rash man indeed who would predict where the functions of the State are to cease. On every side we see the functions of the State extending, and successfully.

29. *Mr. Proud.*] There is a great deal of expense incurred in conveying the coal from the ship's side to the householder: can you suggest anything to decrease that expense?—In Wellington there is a great disparity between the cost at the ship's side and the cost to the consumer. I think the figures are to be found in the Coal Committee's report already referred to. It seems to me that the screening and bagging are very important items in that connection.

30. Would you limit the profit of the middleman?—I think complete State control would be better than that. I do not think it is possible or desirable to limit profits.

31. At Home, instead of tumbling the coal on the ground, they lower it slowly into a cell at the railway depot, and the Stationmaster sells it?—That would be a better system than we have here. In connection with the sale of bread, the law gives you a remedy, and you can compel the vendor to weigh it; but in the case of coal you have to take the man's word for it.

32. *The Chairman.*] You can compel him to bring a weighbridge ticket?—The Coal Committee did not know that, and it was suggested to have that provision made by law. Mr. Ferguson, the secretary of the Wellington Harbour Board, wrote to me on the same subject, when I introduced a Bill dealing with weights and measures. Another difficulty is this: Wellington is pressed for space, and the people require more room to store their coal. If people have to take it in small quantities they have to pay more for the coal, and that is a factor in increasing the price of it to the consumer.

33. *Mr. Proud.*] If the Government took control, do you think it would be a means of stopping the great waste of coal that takes place?—I think so. The Government is much more ready to adopt improvements than private companies could be expected to be.

34. Do you think they would improve the class of steamers and carry the coal at less expense?—Yes.

35. *The Chairman.*] What is the retail price of coal in Wellington now?—I believe it is as high as £2 a ton.

36. That has been denied by the dealers: they say the price is £1 15s. for screened coal?—The coal I get is half West Coast and half Newcastle, and they charge 18s. 6d. for the half-ton. I have been told by people living at Newtown that they pay 2s. per hundredweight. But, as far as my own personal experience is concerned, I must say that I prefer the more inflammable West Coast coal and the coal from Newcastle, and I get them mixed at £1 17s. per ton cash.

ERNEST GREGORY PILCHER examined.

1. *The Chairman.*] What are you?—Secretary to the Greymouth-Point Elizabeth Coal Company, at present acting for the manager and receiver in London.

2. Is the company in liquidation?—No; but it is in the hands of a receiver appointed by the Court.

3. For what purpose?—Selling or transferring the property. He is a receiver appointed at the instance of the debenture-holders.

4. It is known as the Greymouth-Point Elizabeth Railway and Coal Company?—Yes.

5. What properties are held by that company?—They hold the lease of the Brunner Mine, about 1,200 acres. There are also leases of about 4,000 acres, 685 acres, 1,280 acres, and 223 acres, in the Coal Creek and Point Elizabeth districts.

6. Have you anything to do with the Blackball Mine?—Nothing whatever.

7. Will you tell us the position of the company, because the Brunner Mine is at least working?—The Brunner Mine is the only mine on the company's property that is working at present. It was taken over by the Grey Valley Company in 1895, and has been worked by the Greymouth-Point Elizabeth Company ever since with slight exception.

8. Is it being worked on behalf of the receiver?—Yes; by me, in the interests of the debenture-holders.

9. Has it been sold again?—No. A conditional contract has been made, I understand, for the sale in certain events to some capitalists in London, who propose to work the new properties as well as the Brunner Mine.

10. Is that the syndicate represented by Sir Edwyn Dawes?—Yes.

11. And they also own the Blackball Mine?—Sir Edwyn Dawes has been the proprietor of the Blackball Mine for some years.

12. Can you tell me the capital of the Greymouth-Point Elizabeth Railway and Coal Company?—I have no very accurate information in the colony about it. It was registered in London in 1894, with a nominal capital of £200,000, and a debenture capital of £90,000, of which £65,000 has been issued, as far as I know.

13. Do you know what share-capital is paid up?—No share-capital has been paid up. They worked on debentures, as a start.

14. And if this contract is carried out will there be an absolute or partial loss?—I have no information as to the terms of the sale yet.

15. Have you been distributing the coal here?—Yes; we sell it to dealers in the city. We have no retail yards.

16. Can you tell us how the coal is distributed?—Yes.

17. The Point Elizabeth Mine has not been opened, has it?—No.

18. And no coal taken from it?—Nothing beyond samples.

19. Is that property freehold or leasehold?—Leasehold from the Lands Department.

20. Is the rent paid, do you know?—No. The rent has not been paid; it is in arrear by permission of the Government for some years past, pending reconstruction of the company.

21. Is there any other property beyond the Point Elizabeth and Brunner Mine properties?—No other. There are four areas in the Coal Creek and Point Elizabeth properties.

22. You have nothing to do with Wallsend?—No.

23. Nor Coal-pit Heath?—No.

24. Who holds those properties?—Wallsend belonged to the Grey Valley Coal Company some time ago, and is now owned by Joseph Taylor.

25. I understand 140 acres were sold?—Yes; that governed nearly the whole of the coal. The lease was abandoned in 1890. We propose, if it is practicable, to try the Coal-pit Heath workings again, to see if coal can be obtained.

26. Do you know anything about the prospects of the Brunner Mine?—I have the mine-manager's reports as to the estimated quantity of coal available.

27. *Mr. Proud.*] When do you expect to start working the coal at Point Elizabeth?—I cannot say; that depends upon the outcome of the present contract.

28. *The Chairman.*] You will not work it?—No; the receiver will sell to the new owners, who will find the money for working it.

29. What is the output of the Brunner Mine?—Close on 150,000 tons gross output; the sale output is about 120,000 tons.

30. How do you bring that coal here for sale?—By vessels belonging to the Union Steamship Company chiefly. The Wellington Steam Packet Company, Messrs. Levin and Co., and the Anchor line supply steamers for the small ports.

31. Can you tell us the freight from Greymouth to Wellington?—6s.

32. Greymouth to Lyttelton?—7s.

33. Greymouth to Port Chalmers?—8s.

34. Greymouth to Auckland?—We ship no coal to Auckland, but to Onehunga it is 8s. To Auckland I think the charge would be 10s.

35. Where do you sell the coal?—We sell the bulk of the coal delivered at the different ports in New Zealand, but chiefly to the Railway Department.

36. In Wellington, for instance, to whom do you sell the coal chiefly?—To about half a dozen dealers in different parts of the town, who take delivery of it at the ship's side at Wellington. The balance is chiefly used for the railways.

37. At what price do you sell it to the dealers at the ship's side?—£1 3s. for screened coal, £1 1s. 6d. for unscreened, 14s. for slack, £1 for nuts. Sometimes there is a variation of a shilling or sixpence, according to the quantity taken.

38. Had you anything to do with the advertisement which appeared so long in the newspapers stating that householders could obtain coal at the ship's side at so-many shillings a ton?—No. We do not sell household coal. It is not considered to be a household coal; it is a steam-and-gas coal.

39. Consequently, any questions relating to the retail price of household coal have nothing to do with Brunner coal?—That is so.

40. What is your price to the Railway Department?—For screened coal £1 1s. 6d. delivered at Wellington. About 4,000 tons was accepted for this year's contract.

41. What is the railway-haulage from Brunner to Greymouth?—1s. 10d. on coal.

42. And the freight from there to Wellington is 6s. a ton?—Yes.

43. That would leave the price at Brunner at 13s. 8d. Then there is the royalty?—Yes; that is 6d.; also 2d. for commission-charges, ½d. for the Accident Fund, and the cost of wages and furnishings of the mine. The loading is included in the railway-charges.

44. In the event of this tentative contract being made permanent, is the Blackball Mine likely to be included in the company's properties?—No, I think not. I think it will be quite a separate affair. Sir Edwyn Dawes is the actual freeholder of the Blackball property, and I suppose that gives rise to the general belief that all the properties will belong to him.

45. *Mr. Proud.*] Your manager has complained about the shortage of trucks?—Yes. I have complained to the Railway Department, and have received a reply stating that they will take steps to increase the number.

46. Is that not a great disadvantage in working the mine?—Yes; it is the principal drawback to the output.

47. When the new company is fairly going do you think there will be work for all the men now out of employment?—Yes; I think all the men out of work will be absorbed at Point Elizabeth. In considering the price of the coal at the pit-mouth it has to be understood that there is a vast waste of small coal and slack.

48. *The Chairman.*] I was going to ask you about the fireclay, brick-making, and coke products?—That all comes under the company's business. The company have a complete plant for coke-manufacturing, consisting of twenty-four beehive ovens; but the trade of the colony is not sufficient to keep the whole of them employed. At the present time I think we have only twelve ovens working, and a large stock of coke on hand.

49. *Mr. Proud.*] Could you not find a trade for the coke outside the colony?—No. We have tried the largest consumers. The Mount Lyell Company have built their own ovens, and they have erected them on the site of their own mines in New South Wales. The Union Company asked rather a prohibitive freight to Tasmania.

50. Where do you get the coking-coal from?—From the slack.

51. Can you make a good coke from your slack?—Yes. The quality is first class; but for the works at Mount Lyell they do not require the hardest for copper-smelting. Our coal is rather heavy, and is not so well adapted for domestic purposes as for manufactures, and that often prevents us getting some of the gas-company contracts. We are prepared to turn out from 400 to 500 tons of coke at the mine, but the demand at the most is for only about half that quantity, and that not throughout the year. The coke is largely used for malting purposes in the Nelson District. For fireclay goods, such as brick, tiles, and railway-locomotive blocks, there is a large demand right through the colony, but we cannot compete with the English-made bricks in Australia. They are brought out at a cheap rate of freight, and probably often as ballast.

52. *Mr. Proud.*] If you lowered your prices could you not compete with them?—Yes; but the price does not leave a very extensive profit, even if we made more. The fireclay brick is high in price, of course, in comparison with the ordinary building-brick. The price is £6 per thousand at the Port of Greymouth. While I am here I would like to remove an absurd impression which seems to prevail at Greymouth. It was stated before the Coal-mines Commission there that "the monopoly is due, no doubt, to the carrying of coal being to a large extent in the hands of one company. I think it should be made a condition in all leases granted in future that, apart from contracts entered into, every steamer or other vessel coming to the port for coal should have an equal opportunity of getting a cargo with the Union Steamship Company. In the past that has not been so." As far as our company is concerned, during my management and the last four years there has been no suggestion at any time that the Union Steamship Company only should get coal. As a matter of fact, all the companies sending their vessels there can be supplied, subject, of course, to our railway contracts, which are most important. We have the bulk of the railway contracts, and they take all our time to fulfil, because it is screened coal that is required for the railways. This is the first year the department has accepted any unscreened coal. Further, in the Brunner lease it is provided that "the lessee shall and will throughout the said term supply to all and every person," &c. So that, as a matter of fact, the lease provides for the very matter complained of, and is in accordance with the Coal-mines Act of 1891.

WEDNESDAY, 1ST MAY, 1901.

WILLIAM ALFRED FLAVELL examined.

1. *The Chairman.*] You are?—Branch manager at Wellington of the Westport Coal Company.

2. And have been in that position for how long?—About two years and a half.

3. And prior to that?—Prior to that I was at Wanganui for about eighteen months in a similar position, and before that I was down at the mines for some years.

4. You say you are branch manager at Wellington: I understand you have two branches here?—We have a retail depot, which is under separate management. I do not interfere with the retail sales.

5. Do you manage the sales?—Yes; the wholesale trade, and conduct the business of the company in any way.

6. On what terms do you generally dispose of the coal in Wellington?—It is brought round from Westport, and the coal dealers are notified when the boats are expected, and bring their carts down for it.

7. What price do you sell it for?—£1 4s. per ton for screened coal, less 2½ per cent., which brings it to £1 3s. 5d. Out of that we pay 1s. wharfage, and 3d. for weighing and tallying, which really makes it £1 2s. 2d. c.i.f. when all the charges are taken off it. It leaves us net £1 2s. 2d. at the ship's side.

8. What does the dealer pay?—£1 4s.—made up in that way.

9. What is the lowest price you sell it at in the biggest contract you have?—There is nothing less than that price for household coal, except for the railways, which is now £1 2s. 6d. On that there is no wharfage or weighing to pay, and, of course, no discount. That is net.

10. What other class of coal do you sell?—Unscreened, which is nearly all sold for steam purposes.

11. You sell that at what price?—18s. 6d. c.i.f. The bulk of that is sold from our hulks. The coal is sold on shore at 18s. 6d., and on coal sold *ex* hulks the cost of the hulkage has to be added, bringing it up to £1 1s. 6d. It has an extra handling, and there is the cost of keeping the hulk up.

12. Is there any other class of coal you sell?—Yes; the small coal, which is sold for steam and gas purposes at about 14s. 6d. per ton; this is our unscreened nuts. That is really what passes through the screens when screening the face-coal.

13. What is the freight from Westport?—The present freight is 5s. 5d. from Westport.

14. Do you know what it is to other places—to Lyttelton, Dunedin, Auckland, and so on?—I do not know with any degree of certainty.

15. You also have a retail branch?—Yes.

16. What do you sell screened household coal at from the yard?—£1 15s. net. I have an advertisement taken from one of the newspapers here a few days ago giving the retail prices. It shows the price of Coalbrookdale to be £1 17s., but a line at the bottom of the notice states that a discount of 2s. will be allowed for cash on delivery.

17. Are these your prices?—Yes.

18. I have never heard of any one who could get a ton of coal delivered from the wharf?—I can mention Mr. Thompson, Clerk of the Court here, who has obtained his coal in that way since he has been in Wellington. There is no difficulty about getting it from the ship's side as a general thing, but for some time past coal has been very scarce, and the coal merchants have rather discouraged it. They had to minimise it by sending out half-ton lots to people who could take a ton; but, generally speaking, there is no difficulty about it. I have made inquiries, and have found there were no difficulties, except when there has been no boat discharging at the wharf. People may ring up sometimes, and there is no boat expected for a week.

19. How long have you had the retail branch?—Since 1895. We took it over from the Grey Valley Coal Company.

20. Do you think 11s. a ton a fair margin for expenses and profit?—Yes. In the advertisement it says household coal is sold at £1 8s. at the ship's side, but from that there is a discount of 2s., and that reduces the retail price to £1 6s. net. Delivered from the ship's side, tipped up, it is £1 11s., the difference of 3s. being for cartage to the house. If carried into the house another 1s. is added, making the price £1 12s. If, on the other hand, it is not bought at the ship's side, and the coal has to be taken from the ship to the depot and trimmed and rescreened in the yard, and a percentage of small coal taken from it, and then bagged up and taken out to the consumer, the charge is £1 17s. from the depot carried into the house. From all these prices 2s. a ton is allowed if the account is paid by the end of the month. But I believe that is even not enforced, and that they do not exact the full price to customers if they do not pay at the end of the month. If the coal is bought in small quantities the price is gradually increased, and for less than a quarter of a ton a rate equalling £2 is charged. The reason for that is that the dealer may have to go to a house ten different times to deliver a ton of coal in 2-cwt. lots in place of a 1-ton lot.

21. The dealer pays £1 4s. a ton for coal which he sells at £1 15s.?—The difference between £1 4s. and £1 15s. is made up in this way: He adds on 2s. a ton trade profit as between the wholesale man and consumer, and the difference is made up in labour-charges, as follows: The coal has to be carted from the ship's side to the merchant's shed. It has to be rescreened, and the screening, I understand, results in about 10 per cent. of small being taken out, and the whole of those items have to be added on. There is the cartage to the yard, trimming in the yard, with the resultant loss of 10 per cent. in small coal, then the bagging and delivery from the depot to the consumer's house.

22. Is there any protection to the consumer as to weight?—Not that I know of, except the ordinary one that the law provides.

23. What does the law provide?—If 18 cwt. of coal is sold for 20 cwt., and the Inspector of Weights and Measures discovers it, the dealer can be punished.

24. *Mr. Lomas.*] Do you prefer to sell the coal at the ship's side?—No; I prefer selling it from the depot, because if there was a large demand for it at the ship's side it would necessitate an increase in the plant. You can quite understand that if there were a hundred people wanting it at the ship's side it would be much more difficult to supply them than to do it leisurely from the depot. It would all have to be delivered in the one day while the ship was discharging, whereas if a number of carts were employed taking comparatively small quantities great delay and confusion would ensue. At the same time I think I am correct in saying that the coal merchants do not discourage people ordering coal at the ship's side, although, probably, if coal was ordered in this way to a very large extent they would have to make the limit a full cartload, instead of delivering it in 1-ton lots. We advertised the ship-side price originally in order to regulate the prices and to enable the consumer to obtain coal at a cheap rate. The Westport Coal Company advertised that coal could be had at £1 6s. a ton at the ship's side, and, as I say, we have not refused to supply coal in that way so far as I can ascertain.

25. Do you say the object was to keep the price of coal down to the consumer?—Yes; and to encourage people to take the coal as it arrived here from the ship's side.

26. *The Chairman.*] I can understand you when you say it was done as a check upon the dealers, but not when you say it was to encourage people to take it from the ship's side?—I think I am quite correct when I say that is so; and I cannot ascertain any instance where people who were prepared to await the arrival of a ship had any difficulty in getting it.

27. *Mr. Proud.*] I think you said the net price was £1 2s.?—£1 2s. 2d.

28. And £2 delivered into the households?—Yes; but I have explained how it was made up.

29. That is 18s. a ton difference: would it not be very much cheaper to put the coal into bags at the pit-mouth?—You could not do that. From my knowledge of it I think it would be impracticable.

30. *The Chairman.*] I appreciate your statement that the advertisement may have been put in as a check upon the retail dealers, but I believe that it was not intended to supply the coal at the ship's side on those terms?—Of course, I cannot speak as to whether that method of purchasing coal has been discouraged by other dealers; I am only speaking now of what we have done. I have never hesitated to take an order; and, as the price has recently been published, any one wanting coal in that way can test the matter for themselves.

31. *Mr. Proud.*] Do you sell it at your depot at the same price as the retail dealers?—Exactly the same. The retail price is the same all over the city.

32. *The Chairman.*] Do you do a large amount of retail business at your depot?—Yes. They got about 7,000 tons of screened coal from us during 1899. Of course, we sell Newcastle coal for customers who want that.

33. Can you suggest any way by which the poor people can get coal cheaper?—Yes, I think so. Coal would be supplied much cheaper if they would be content to take it as it arrives in Wellington, and in a large quantity. 5s. could be saved right away if they were to buy it from the yard in ton lots at a time instead of ordering it in 2 cwt. lots. But many of them have not the accommodation to enable them to do that.

34. What could they save providing they took unscreened coal?—It is not suitable for household purposes—at least, the people say so. My own opinion is that unscreened coal is quite good enough for household purposes. I used it for years, and did not want anything better.

35. *Mr. Proud.*] Do you ever supply cobbles and nuts?—We have only the three kinds—screened, unscreened, and small coal.

36. *The Chairman.*] If you sold the nuts you could not sell the slack?—We have such a demand for the unscreened nuts—that is, for the small coal—that it would not really pay us to try and create a trade in that.

37. *Mr. Proud.*] Is the supply equal to the demand now for the colony?—It has been very evenly balanced, and has been for some time. There has been no instance that I know of where people have had to go without coal, and there has not been a shortage of coal. The general cry has come from the householders and retail men; but most of the other people do not go short, because they have contracts and have to be supplied. When the retailers say they are short it generally means that Coalbrookdale coal is scarce; it does not mean that the yards have not other coals to supply. At present they are complaining that they have no Coalbrookdale coal, but a boat will be in shortly. In our own yards we have 1,000 tons of Newcastle coal, but there have been times when I had to sacrifice the retail men in order to fulfil contracts. That, however, has only been for a day or two. The cry has not come from the shipping or the big companies at all.

38. *The Chairman.*] You say the coal sold at £1 8s. a ton at the ship's side means £1 6s. net?—That is coal from the mines—screened.

39. Have you any other quality which you sell from the ship's side?—No. You could purchase unscreened coal which could be delivered from the yard at £1 6s., as against £1 15s. for the screened. I might say that there is a little trick in the coal trade. In loading a ship the lumps have a tendency to run to the sides, and if a man comes down and takes his coal from the ship it is sometimes very inferior in size, for the reason that the larger coal runs away to the ends and sides of the hold; so that there is a little chance-work in taking unscreened coal from the ship, and it is a difficulty that cannot be helped.

40. But could they get it from the ship's side unscreened?—Yes.

41. At what price?—£1 to the dealers.

42. And anybody else?—£1 2s.

43. The coal is screened at Westport?—Yes; but if there is any small coal it is in the centre

of the hatchway of the ship. There is not very much of it, and I arrange now with the dealers that they shall go in alphabetical order for the coal, so that every man gets his fair share. I generally arrange a system of turns—for instance, I allot, say, one man 30 or 40 tons, and so on, if the coal is scarce, according to the amount of business the man does.

Sir James Hector examined.

1. *The Chairman.*] You are Director of the Museum?—I have been in charge of the geological surveys of the colony since the commencement, some forty years.

2. What has been done towards compiling a geological survey of the coalfields of New Zealand?—All the coalfields have been geologically surveyed and the results published. There are general and particular maps which have been prepared.

3. Take the Whangarei Coalfields: is there a map prepared showing the area?—Yes; it shows the extent of the coal-measures. The map shows on the ground where the coal is likely to be.

4. What data do you go on?—Geological survey.

5. We want to know what geological information you get as data?—We go over the ground, over the rocks and strata of the country, and make a map of the area. We also examine the shafts and bores, and so on.

6. Take Kawakawa: you are quoted in the *New Zealand Mines Record* for September, 1900, as the authority for estimating the quantity of coal there at something like 12,000,000 tons. I want to know on what geological data the geological surveys were compiled. In the estimate in the *Mines Record* it says that in 1888–89 Sir James Hector stated that he made a rough estimate from the imperfect surveys made, in which the quantity of coal in each district was computed at so-and-so, and a total of 449,000,000 tons is given as the quantity of coal in the colony. Of course, we all recognise what a large margin there is in rough estimates from imperfect surveys, and we want to know what has really been done towards making a perfect survey?—In the case of a coalfield the mining proceeds and the quantity of coal becomes less. My original estimate of the Kawakawa Mine came out very close, and I think I pointed that out in one of my reports. My first estimate of the Kawakawa field was made in 1866. There was a little shaft there at the time, about 13 ft. in the outcrop, and that was all I had to go on. I recommended that something should be done, and how to proceed. One thing I recommended has never been done.

7. They have taken 700,000 tons out of Kawakawa, and the estimate is 11,000,000. The table was published in September of last year?—I never read what the Mines Department says about the mines, and I do not know who makes the estimates. My estimate was made for the Kawakawa coal-mining lease, and not for the whole district. But I believe there is an estimate for all the coalfields in New Zealand.

8. Can you supply it?—Yes. I think it is printed in the 1893 Report of the Geological Surveys.

9. Has the Kawakawa field been surveyed with a view to accurately denoting the outcrops of coal?—Yes.

10. Who surveyed it?—I did most of it myself, and it has been done by others. I have maps extending a very long way about the Kawakawa field, but you cannot map a thing that is out of sight.

11. We want to know what data there really is for the large estimates which have been given. The whole of the colony is deluded into the belief that there are 400,000,000 tons of coal in New Zealand, and your name is given as the authority?—I never said that.

12. The editor of the *Mines Record* for 1900 (September) quotes Sir James Hector, of the Geological Department, as the authority for this estimate?—If he quotes me he must quote something I have written.

13. What do you think of the coal resources of the colony?—The moment you go outside the exact workings of a coalfield it becomes a difficult matter to estimate.

14. Do you think there is any cause for apprehension at the present time that the supply of coal will not be sufficient for our requirements?—I do not know exactly how to answer that question. I think the quantity of coal has been very much exaggerated in some quarters. I have always been opposed to any export of coal from New Zealand. By doing so I think we are selling our best blood—we are selling what it is imperatively necessary to keep for ourselves. I think, however, there has been a great deal of muddling in the working of our coalfields.

Martin Kennedy examined.

1. *The Chairman.*] Your name is Martin Kennedy?—Yes.

2. Have you any connection with coal at the present time?—No, none whatever.

3. You lived for many years in Greymouth?—Yes.

4. You were the owner of coal-mines there?—I was owner of the Brunner Colliery.

5. For how many years did you work it?—As private owner, for about fifteen years.

6. And then what happened to it?—The amalgamation with Wallsend and Coal-pit Heath Mines.

7. It was formed into a company known as?—The Grey Valley Coal Company (Limited). That was in August, 1888, I think. I worked it from 1874 to 1888—fourteen years—separately.

8. Are you still interested in the Grey Valley Coal Company?—No, except in so far that we have some unpaid debentures. They are unpaid by the Point Elizabeth Company, which company are our successors.

9. Did the Grey Valley Coal Company sell to the Greymouth-Point Elizabeth Company?—Yes; that is why we had debentures, portion of which were never paid.

10. The Grey Valley Coal Company (Limited) went into liquidation?—No; we sold out in 1895 to the Greymouth-Point Elizabeth Railway and Coal Company (Limited).

11. I suppose the company is wound up?—No. We are a company without assets, but we are in existence yet. The assets are the unpaid debentures.

12. Do you know what property the Greymouth-Point Elizabeth Coal Company hold?—No; but I have some superficial knowledge.

13. What did you sell them?—We sold them the Brunner Colliery, but they were then in possession of several leaseholds in the Coal Creek Valley, near Greymouth, consisting of several thousand acres.

14. The Brunner Colliery consisted of the Brunner Mine?—That is all—the Brunner lease.

15. What about Wallsend?—They did not buy that; they simply bought the Brunner lease.

16. Who owns Wallsend?—I think Joseph Taylor owns that.

17. How did it come into Mr. Taylor's hands?—The Grey Valley Company sold it within the last twelve months.

18. Do you know how much they sold it for?—I think about £150. We were glad to get rid of the responsibility of having a shaft.

19. What did they sell—the 150 acres freehold, or was it a leasehold?—The Grey Valley Company had nothing to sell but the shaft and about a couple of acres of land. That is all the freehold they had.

20. Who owned the freehold?—That belonged to the Westport Coal Company.

21. Has that been sold?—I am told it has, but not by the Grey Valley Company. The Westport Coal Company and the Grey Valley Company combined to sell. I understand the head office of the Grey Valley Company is in Dunedin. Mr. Joachim is manager of it, and of the Westport Coal Company also. I was managing director, and I concurred in the sale.

22. Was this 150 acres of freehold included in the property purchased by Mr. Taylor for £150?—Mr. Joachim tells me it was, but of my own knowledge I do not know.

23. About the Wallsend Mine: the Westport Coal Company bought the Wallsend Mine from whom?—From a company which was then in existence.

24. What was the name of the company?—They changed the name twice, so I might confuse it. It was the Greymouth Coal-mining Company first of all. They used up its capital of some £40,000, and then reformed it under some other name, making it slightly different, and that company spent I do not know how much money—a considerable sum—and it was that company that sold the Wallsend Mine to the Westport Coal Company.

25. How much did they sell it for?—I was then the separate owner of the Brunner, and I do not know what my opponents sold out for; and if I told you a sum I might be wide of the mark.

26. Did you understand it was hundreds or thousands?—I think it looked like a sum of £20,000, if I remember rightly. I think Evan Prosser represented this company, and the late Mr. Larnach and Mr. Gillies, representing the Westport Coal Company, went over to Australia, each seeking additional capital. Both interests combined, resulting in the Westport Coal Company buying out the Wallsend Company.

27. The Westport Company bought the Wallsend Mine from the then owners, and subsequently, I think, they bought the freehold?—Yes. They were enabled to buy the fee-simple of some 150 acres of the 1,000-acre leasehold known as the Wallsend lease.

28. Do you know how they managed to buy the freehold?—That is a question I know nothing about. They were opponents of mine at the time. I was never in the counsels of the Westport Coal Company, except so far as my interests in the Grey Valley Company, and that was subsequent to 1888. They had bought this property long before that.

29. You formed a pool of the companies—the Brunner, Coal-pit Heath, and Wallsend?—Yes, we combined the three; call it by that name if you please.

30. Were you in a position to know the operations of the Grey Valley Company with regard to the Wallsend Mine?—Since the Wallsend property came into the amalgamation I knew all about it. I was the managing director of the combination.

31. You know, then, all about the Wallsend from that period?—Yes, certainly.

32. Will you tell us, please, the circumstances which led the company to close the Wallsend Mine and to dismantle it?—There were two circumstances at the time which caused it to be closed in the first instance, and it was only intended to be temporary. There was a dispute on at the time, and if there was not a strike there was a threatened strike. This was in 1889. I think there was a temporary strike on a small scale, and also a slackness of trade, so we decided that it would be better to close down the Wallsend Mine and work the Coal-pit Heath and the Brunner Mines, because the Wallsend coal was not giving satisfaction. The latter was a stronger reason why it was determined to stop than either of the other causes. The coal was the worst coal of the three mines, and the cost incidental to winning it was greater. It was regarded as a fiery mine, and they used to use safety-lamps there instead of naked lights; and also pumping operations had to be carried on, the shaft being 670 ft. deep. So it was resolved, as I say, because there was rather a scarcity of miners, owing to the strike that was on, and some of the men had left the district, and because there was a slackness of trade and dissatisfaction with the coal that was coming out of the mine, the mine was closed down at the time.

33. Do you know anything about the shipment of coal that was sent to Melbourne from the Wallsend Mine, and which was said to be a failure?—No; I never sent any from there. We used to send it from the Brunner Mine. There may have been a trial shipment before the amalgamation.

34. There is a shipment specially referred to. It was sent to Melbourne either from the Wallsend Mine alone, or jointly with the Coal-pit Heath coal. It was sent for gas-making purposes, and it was reported upon unfavourably?—I do not know anything about that, but we used to send coal there from the Brunner for many years, chiefly for the Bendigo Gasworks.

35. What was the deficiency in the coal in the Wallsend Mine?—Stone. It was impregnated

with stone. The quality, if you could get it cleaned, was fairly good, but some of it was soft and indifferent. I have given several reasons why the mine was closed down, but another is that it was regarded as fault-locked. In whatever direction we worked the coal, faults were met, including going under the river Taylorville. So that after we had been shut down for some time, and came to discuss the propriety of opening it again, it was pointed out that the difficulties and indications were so bad that it was not worth doing.

36. What was done with the plant?—It has been sold piecemeal. A good deal of it went to Australia.

37. What was the value of the plant and the works sacrificed when the mine was shut?—I could not give you the actual cost of the plant. The property, as you understand, came in at the time of the amalgamation without any specific valuation; but I cannot say what the value of the plant actually was.

38. Was it an extensive plant?—Yes, a very good plant.

39. Worth perhaps £20,000 or £30,000?—Yes, I should not wonder if it cost over £20,000; and I do not suppose it realised over £2,500—the whole thing. I am satisfied it did not realise one-eighth of its cost, and it was all new.

40. The Coal-pit Heath used to be in the amalgamation?—Yes.

41. Who put that in?—The Westport Coal Company. After they purchased the Wallsend Mine and worked it for a time they found the coal was bad, and that they had made a bad bargain, and finding that the Coal-pit Heath coal was in favour they purchased it to help them out of their difficulties.

42. I understood it was the Union Steamship Company that put the Coal-pit Heath Mine into the pool?—No; it was the Westport Coal Company. The Union Steamship Company had no interest in any of the collieries at the time. They only came into it through me after the amalgamation.

43. How did they get in?—The three collieries were brought together—the Westport Company's Coal-pit Heath and Wallsend as one, and the Brunner as the other—and I was allowed one-half interest of the three, and the Westport Company the other half. I then sold half my interest to the Union Steamship Company, and that is how they came into it.

44. You say the Westport Coal Company bought the Coal-pit Heath Mine and worked it?—Yes.

45. Well, we will take it after the amalgamation, when you had control of the three properties: what was the value of the works on the Coal-pit Heath property when you took control? How much had been spent at Coal-pit Heath?—It is a very difficult thing to say in connection with a colliery.

46. It is said that something like between £60,000 and £80,000 has been spent on Coal-pit Heath?—Nothing of the sort. I do not suppose they spent £20,000 from beginning to the finish.

47. All the proprietors?—I do not think all the proprietors combined put £20,000 of new capital into the Coal-pit Heath Mine.

48. They might have spent £100,000 out of profits?—I know that collieries may spend it out of receipts, and not out of profits.

49. Then the works may have been in excess of the requirements?—But there were no works—only sinking a 300 ft. shaft.

50. We were told that Coal-pit Heath was an expensively equipped mine?—Nothing of the sort. They had no expensive machinery; they were fit to put out 300 or 400 tons a day. It was a good gas-coal.

51. And what became of the mine?—It was worked out.

52. Do you say the Coal-pit Heath Mine was worked out?—Yes, absolutely worked out. Everything that was available for working was taken out. Whether it was efficiently worked or not I am not an authority to say, but it was understood there was no coal remaining that was profitable to take out.

53. And then what did you do with it?—Let it fill with water.

54. What did you do with the machinery?—The machinery was all on the surface. There was none down below worth speaking of. The machinery there did not realise £500.

55. What did you do with the surface plant and machinery?—Some remains there, probably, but we sold all we could. We used it up, and took some away to the other colliery to do the best we could with it.

56. It was stated to us at Brunner that the Wallsend and Coal-pit Heath Mines were deliberately wrecked in order to profit the Westport mines?—There is not an iota of truth in it—not a particle of truth. I was a fourth owner in the amalgamation, and I do not think I should have allowed my fourth interest to be destroyed for their exclusive benefit. I never heard a whimper to that effect until I saw the reports of the Commission's proceedings. The working of the mines, I may say, was in my hands exclusively, and there was no closing down without my deliberate consent in each case.

57. Were you losing money on the mines when you closed down?—I told you the conditions under which the Wallsend Mine was closed down. We could not say whether the Wallsend Mine was losing money or not. There was only a small profit being made at the time in all the mines, because the development-work in each of them was very costly, and trade was not then as it is now, when coal is in great demand. We had difficulty in getting a market. The demand has quadrupled, I suppose, since then. What you can get a market for now we used to put into the river then. I have no interest in coal-mining at all now.

58. We want to know all we can which will enable us to form an estimate of the prospects of the supply of coal in the Grey Valley being kept up for some time?—I am not an authority on that, and it is no use my offering an opinion on the point.

59. Having sold out your interest in that district, I suppose you would hardly like to express opinions which might not be favourable to those purchasing from you?—My impression of the collieries I had in charge is that they are worked out, and that it would not pay to re-open Wallsend. There is nothing to open up in the Coal-pit Heath Mine, all the coal being worked out between the river and the fault; it is doubtful if the coal lives beyond the fault.

60. And what about the Brunner Mine?—That is about the same. If you refer to the plan you will see where we drove about half a mile trying the fault, and the verdict was that it was a thin-out, and that the coal did not live. You will see the report of the investigation that took place accompanying the plan. From that I conclude there is no encouragement for any private party to take it in hand again; nor do I see why the Government should do it.

61. Do you think that coal-mining in the Grey Valley has been remunerative?—It has paid, but there has been nothing very good in it. On the whole, I doubt whether coal-mining in the Grey Valley has repaid the capital that has been put into it.

62. The Brunner Mine is now held by the Greymouth and Point Elizabeth Coal Company?—It is held now by the owners of the prior lien debentures.

63. Or by a receiver appointed by order of the Court?—Yes.

64. Do you know whether it is held under the lease you obtained in 1887?—I assume so, but cannot say.

65. *Mr. Lomas.*] Did you find any coal at all in the Wallsend Mine equal to the coal in the Brunner and the Coal-pit Heath Mines?—Some of the coal in the Coal-pit Heath—the medium and the best—would be as good as the Brunner coal. The best in the Wallsend Mine was equal to the Brunner coal; but the best in the Wallsend Mine was not equal to the best in the other mines.

66. And you had always a difficulty in selling it?—Yes; it took a great deal of cleaning. At the screens we would have to have perhaps two extra men employed to take the stone out of the coal.

67. Was it sold chiefly for steam purposes?—Yes.

68. Not for household?—Of course, locally, it sold in Greymouth, but that is a mere trifle. It was used generally for steam, but the steam people did not want it either, because the bats and stone make it very bad for steam purposes. Once the buyers realised what it was they would not take it if they knew they were getting it.

69. You were not able to sell it unscreened for steam purposes?—No.

70. But you could sell the Brunner coal unscreened?—There was only a very small proportion of our output that was ever sold unscreened, as the Brunner Mine made a great deal of slack-coal.

71. *Mr. Proud.*] Had you not very inferior screens at the time you were working the Wallsend Mine?—I do not know that they were inferior, but they may have been compared with those in use now in places.

72. Had there been a better class of screens and appliances at the time, could not the coal have been sent away in first-class condition?—If there is 30 per cent. of stone in the coal it is very difficult to send it away in good condition.

73. But with the appliances they have now they could take all the stone out?—But it costs money. If it costs 5s. a ton to send the coal to grass, then you have to take 30 per cent. of stone from it, that increases the cost.

74. But, if you could take the stone out, you would not send it away with the stone in it?—But we pay the miners for the gross, and to take it all out breaks the coal up, as it is impregnated in the coal.

75. With a chipping-hammer you could chip all the coal out of it?—That is more than I know. I think you would have a great deal of difficulty in chipping the coal without bringing it to a dust, because the bands are irregular; and then you would have to screen it again to take the dirt out of it. That is the trouble. If the stone was in clean, well-defined bands it could be done, but where the stone and coal are mixed you could not do it.

76. Was the quality of the coal everything you could wish for?—I would not say that. There was a great deal of soft coal or mush that you could crush in your hands. It was almost an impossibility to take the stone out of it and make it pay. I think the profit at the time was about 6d. per ton all round. I think Sir James Hector's Coal Commission took evidence on that point about the time, and it was shown the profit was about 6d. a ton.

77. *Mr. Lomas.*] Is it not true that frequently when you were putting the coal on the trucks it looked clean, but that as soon as it was broken up stone was found in the middle of it?—Yes, that was the trouble. In Newcastle they have bands which are taken out much easier—penny bands, twopenny bands, and threepenny bands, as they call them; the bands, being clay, are left in the mine. You cannot do that in the Wallsend Mine, because it is all mixed up.

78. *Mr. Proud.*] But the breaking of the coal would not injure it as a gas-coal?—But it is not a gas-coal. Breaking the coal does injure it, because you get so much small that you have a great deal of waste, and people will not take the small as round coal, not within 2s. 6d. a ton. They will not do it.

THURSDAY, 2ND MAY, 1901.

Sir JAMES HECTOR re-examined.

1. *The Chairman.*] Will you kindly look over that article [*Mines Record* for September, 1900, produced], which purports to be written on a report furnished by yourself, and give us any observations you have now to make upon it?—I suppose it is correctly copied from what I stated to the Committee. I went by the figures in the books both as to the area and probable quantity.

2. It is put forward as a rough estimate calculated from imperfect surveys?—I think it is rather a full estimate, because at the time some of these surveys were made there were very few workings opened up, and nobody was aware of the wonderfully faulty nature of nearly every one of the coalfields of New Zealand. Extraordinarily thick seams are constantly found to be cut off by these faults. In a few cases they have been recovered, but fresh work has had to be started, so that the estimates given by the original surveyors have had to be materially modified. I produce Mr. Park's list of these estimates, and by whom they were made.

3. You have estimated Kawakawa to contain two and a half million tons of coal?—That is the area of the northern coalfields, and not the coal in the Kawakawa leaseholds. That estimate has been borne out almost exactly; but the mine is worked out now, except that the pillars were left in.

4. The next field is Waikato, 140,000,000?—I gave it as 51,000,000. Professor Hutton originally made it 140,000,000, but the faults at Ralph's and Taupiri Mines were not known in those days, and in again making the estimate they would have to be taken into account. The estimates would have to be amended by the results of the positive workings.

5. Can any reliance at the present time be placed upon these estimates made so long ago?—For safety's sake I should divide it by two, but not all round. At Mokau there is an immense additional area discovered to be coal-bearing, but there has been no work done there, except on the Mokau River, and that is very small.

6. Suppose I said you should divide it by ten?—I should not agree to that. Mr. Park makes the brown coal an immense quantity, and the Buller estimate 140,000,000. This is taken from Mr. Cox's report, but the faulty country at the top of the hill there naturally reduces his estimate.

7. Can you give us any idea of how it should be cut down?—I could not, without going very carefully into the matter. I would have to get the plans, and make a kind of average reduction per acre as caused by faults for a certain area, and then apply that to the general estimate of the whole field.

8. *Mr. Proud.*] Should you not take note that these calculations only apply to shallow beds?—There are no deep ones. The only one which goes under the sea is at Shag Point. The coal-measures of New Zealand that are worked for the market are in a totally different formation from the ordinary coal-mines at Home, and the rules and experience gained from the working of the mines at Home cannot be applied to this country. Wherever there are strata containing coal, the area is carefully mapped, and it is ascertained how the coal is related to the beds above and the beds below, and the average thickness of the seam where exposed is noted. These outcrops and the result of exploring drives are averaged, and it is assumed that the coal, unless there are any obvious surface features to indicate a fault, is of uniform thickness for that area.

9. *The Chairman.*] Has not practical working demonstrated that as a rule outcrops such as would indicate the uniform distribution of coal in other countries do not indicate such uniformity in New Zealand?—Not necessarily, on account of the excessive amount of faulting.

10. Taking the bituminous coal on the Buller and Grey, have you taken notice of the proof given by actual working?—Yes, I have made plans of the whole thing. I have been many times down there—twice as Chairman of a Commission to investigate. As the workings developed the existence of great faults became evident from year to year.

11. How far have the indications faulted by the outcrops shown uniformity of seam?—I think, in the case of the Brunner Mine, fairly well. The estimate is fairly good for the part that has been worked, but it has been separated by faults so that the estimate cannot be taken for the whole of the leasehold of 9,000 acres. Since then I have surveyed the whole of the country to Coal Creek, and I find that instead of there being one seam, as at the Buller, there are four or five seams. They are faulty to some extent, but they are not cut up by the tremendous faults we see elsewhere. With regard to the Mount Rochfort plateau, the coal is not deep. The cover is very light, and the coal is over large areas, where, in some cases, it has never been deposited, and in some others it has been removed by denudation. But faults are evident on the surface, and it was known from the first that it would be a difficult field to work, and there would be a great deal of dead work and stone-driving to connect one patch of coal with another patch.

12. Take the Grey: what did you give there?—37,000,000 tons. That takes in the whole of the area to Nine-mile Creek. My estimate for the Brunner Mine was: "Provided no fault occurs in the strata, on the most favourable computation, the portion of the field now leased (9,000 acres) should yield 5,000,000 tons of coal."—(Trans. N.Z. Institute, 1869; Vol. II., p. 381.) The fearful mess that the Wallsend Mine got into was never contemplated. It was never thought that one side of the river would have good coal, and that on the other side it would be all split up with faults and run out to stone. The coal was broken with faults in the outcrop at Kilgour's Mine, and when it went into the dip it disappeared in this Wallsend Mine, which, I understand, is quite unworkable. The Brunner Mine is only partly worked, but the part that has been worked has kept up to about 6,000 tons per acre—that is, not including the pillars. Since then they have taken out the pillars, which would greatly increase the amount.

13. *Mr. Proud.*] 6,000 tons an acre for a 14 ft. seam is a very small quantity?—They left enormous pillars in. I may be wrong in saying 6,000, because I am just going by memory. The reports give all the information.

14. *The Chairman.*] The position is this: we are met on the one hand with an estimate of the quantity of coal available in the Grey Valley varying from 37,000,000 to 53,000,000 tons. On the other hand we find that by actual investigation, after leaving out of the question the Blackball area, the only available coal at present known is about 200,000 tons estimated to be contained and available in the Brunner Mine. Of course, we all know the difference between the surveyor's estimate, in which every ton of coal is reckoned, and the available coal that can be actually won. We recognise that large quantities of coal must necessarily be left in the mines; but the position

is this: on the one hand there are estimates of from 37,000,000 to 53,000,000 tons, on the other hand there is the statement that 200,000 tons will close the mine?—Nobody ever said that there was 37,000,000 tons in the Brunner Mine. It is in the whole of the Grey Valley, extending from the Nine-mile to Blackball, and probably a patch being found towards Lake Brunner. At that time it was always thought that Blackball was going to be a successful mine, and the Coal-pit Heath Mine has turned out well so far as worked.

15. We are not going to attack the estimates, but we want your opinion whether we should take the gloomy or the hopeful view of the situation, and for that purpose we are asking these questions?—If they could overcome the fault in the Brunner Mine, I do not see why it should not go ahead. They have failed there through bad direction. In the first attempt made to get through the fault they cut into the left instead of the right, and the result was that they came out into the marine beds. The coal right up to the fault was quite workable.

16. *Mr. Proud.*] Could they not have found the seam by boring holes?—Yes; I recommended that; but they would have to go some way, because there is evidently a big heave there, so that it makes it very difficult to answer your question. It would be something very extraordinary if that seam has disappeared, which is some 6 ft. or 10 ft. thick.

17. But coal has been found beyond that?—Yes; the Coal Creek proper is shown by my reports and plans. The seams are not anywhere so thick as they are in the Brunner, and I have a little doubt as to which actually represents the Brunner seam; but they are exceedingly valuable seams of coal, and five in number. The upper seam I recognise as the coal in the Blackball section, and below that there are several seams of very high quality. Then, far above in the section, comes in the pitch-coal seam—the same that crops out in the Nine-mile Creek—and there are indications of a number of other seams. The seams are exposed very favourably for examination. In the Coal Creek section there are good seams, and up Coal Creek itself there is a fine cascade, cutting two seams of coal in the fall.

18. *The Chairman.*] Have you not found the indications in the cliffs prove very deceiving?—The work of a practical geologist is to prevent anything to deceive, but I think there is not much chance of being deceived about Coal Creek.

19. Have you not found an outcrop to show best coal on the external surface, and to wedge out?—Not as a rule.

20. *Mr. Lomas.*] Is that not the case at Denniston?—Yes, when we get down to hard floors.

21. *The Chairman.*] And at Mokihinui?—That is a very troubled bit of country.

22. *Mr Lomas.*] Is it not a fact that at Denniston the best coal in both seams has been found on the outcrop?—Yes, to some extent; but that may be explained by the fact that there is more drainage to the coal. It is because the outcrop coal under certain circumstances is better drained.

23. Is not coal pinched out to the plateau in both seams?—They may have discovered something within the last few years. I have always had a grave doubt as to whether there are two seams there.

24. The first seam they worked was Bambury seam?—Yes, in the conglomerate breccia.

25. *The Chairman.*] Do you know anything about deposits at Point Elizabeth?—There you are right on the upper calcareous beds. There is no coal at Point Elizabeth. It is all limestone and marl. The coal is at Coal Creek and as far north as the Nine and Ten Mile, where the slates come out on the coast.

26. I suppose, in the calculation of thirty miles, an immense quantity of coal was supposed to be in the Wallsend Mine?—Yes; it appeared to be going to the dip steadily.

27. And the proof?—When they came to work it was found that it went down and dwindled, and it was also very fiery.

28. *Mr. Proud.*] The faults prove that, but what about the area beyond the faults?—Faults cost a great deal of money to go through. This is a totally different thing. Nearly all our coals, especially those on the West Coast, have been formed in deposits like the Canterbury Plains. There are great quantities of conglomerates, and it is quite obvious that a fluviatile formation of that kind must be very liable to run out. There are great lagoons of vegetable matter which would be formed into coal in the course of time, and they are not seams that can be depended upon for steadiness such as we are accustomed to find in the carboniferous rocks in the Old Country. It was impossible to understand that so clearly in the old days when there was nothing but the surface features to go by, and that will account for a very great difference in the estimates of the quantity of coal available.

29. Do these observations of yours apply to all the estimates of the seams in New Zealand?—Yes, to all perhaps but the brown coals. They are more extensive; but they apply especially to the West Coast and Collingwood coals.

30. Do you think the time has arrived when the Government should obtain later estimates than those given from previous surveys?—Yes, I think it would be a very good thing. There are plenty of mine-maps available now that could not be got in the earlier days.

31. You think that tables of this kind are not reliable?—Not for market purposes. I was asked in a great hurry to give those particulars to the Parliamentary Committee, and they are not all my figures.

32. We want confirmation or correction as to the large quantities of coal in the colony?—I should say the table produced is a great over-estimate. It seems to me that it was done in all good faith, and I have no doubt the calculations were made very carefully.

33. It was made upon data that would have produced these results, if what?—The coal had been steady, which experience has proved it is not in any one of the mines.

34. And data which might have been depended upon in any other coal-bearing countries?—Yes, because the coal-bearing areas in the older measures are so enormous.

35. But which have turned out in such a manner as not to be depended upon in New Zealand?

—Yes. Mr. Park depreciates the value of the coal-measures. In one place he says that the coal available is only equal to England's output for one year.

36. *Mr. Proud.*] In the neighbourhood of Point Elizabeth did you find much coal lost by denudation and cut out by gorges?—Yes.

37. Do you think it probable that coalfields may be discovered beyond the present coalfields?—I think the pitch coals in the North Island are pretty extensive up to Mokau. We know pretty well what there is in the Waikato field, and what there is in the North of Auckland, but down South I really do not know. For instance, we do not know the size of the Reefton field. There is a great block of country over that way which has always seemed to be very likely. It is covered with boulders and glacial drift.

38. Do you think the coal seams you see in the Mokau River go right through the district?—I think they go through to the Wanganui River at Tangarakau. There are several seams parallel on the strike. The Mokau coal does not go north of Awakino. It seems to be cut out by thick deposits of volcanic rock. It seems the underlying formations have been denuded, leaving great holes, which have been filled up with volcanic deposits. When you get into the Waikato basin beyond Te Kuiti you come to the coal again, but it is very slightly altered there, and less valuable. The brown coal is not equal to the Mokau coal.

39. *The Chairman.*] What do you think of the Mokau coal?—The Mokau is a glance coal. It is a splendid steam-coal, but burns rather fiercely, and does not give off gas or form coke.

40. *Mr. Proud.*] Does it extend far?—It extends to Tangarakau, a western tributary of the Wanganui.

41. Is it cut off by the limestone in the north?—The limestone would overlay it. There are wonderful depressions in the north covered with volcanic rocks. You get into great sinks like Lake Taupo, which have been filled up with deposits.

42. Take the Buller area, do you know of any available coal outside the area held by the Westport Coal Company?—I have always thought that the country north of the Mokihinui should be carefully examined by boring.

43. Do you know anything about the Denniston and Milleton plateau—is there any opening for any one to go in there?—If you go inland to Mount William you come to rocks like those at the Lyell River, but until you reach them I do not know that there are any coal-measures. There was a little surface mine opened up in the Onekaka in the old days, but it was steep, and the coal would have to be taken down the Buller River.

44. There is the Mokihinui and Cardiff property which includes the Cave area?—Yes; going up the Ngakawau River you get up on the plateau where the Granity Creek coal comes down. That was given up, but I have never seen any coal-seams there, although the measures are there, and they extend along to Mokihinui. The high-level coals have been dropped down in the Mokihinui basin just as at Ngaukawau, and the coal is of inferior quality compared with the upper coal, as there has been a heavy crush there. The fault cuts through an enormously thick seam, but it is so soft as not to bear handling. That crush goes right through to Page's Creek in the Mokihinui River. On the north side you come to what is evidently the covering beds of the whole coal formation, consisting of shales, passing into blue mud stones, and containing concretions. They are exactly like the shales we find overlying the coal at Shag Point. The formations are identical, and it is not unlikely that by boring this cover coal-measures might be reached; but whether the coal will be equal in quality to the plateau coal is another thing. It would be impossible to say, because it might be brown coal. There has been great hope with regard to Whareatea Flat. The coal would appear only after getting out sufficiently far from the break. The coal might be like that worked in the Denniston plateau, from which it breaks off abruptly. At a certain distance from the base of the hills it would be quite reasonable to expect a recurrence of the coal with a westerly dip, as the section shows, but nothing has ever been done to prove that. If the coal plunges down they should be within a pretty well understood distance of the Cobden beds. At Cape Foulwind there is a patch of limestone, but as it abuts on to the granite it does not look favourable to a recurrence.

45. And the breadth of the flat from the sea to the foot of the hill is very small there?—Yes. At Cape Foulwind there is an area of granite.

46. Going back to the foot of Denniston Hill, I suppose it is within a mile of the sea?—It would be four or five miles, and I am afraid there is no chance there.

47. You would have to set in near the Waimangaroa Creek?—You have Mount Frederick, Mount William, and Mount Rochfort forming a plateau, and when you get down from that everything is obscured by gravels and drifts. It is a question whether it is a down-throw fault or whether denudation has taken place from a much greater distance. There has been a certain sinking of the coast along there, but really without some data to go upon you can only conjecture.

48. The strata at Mokau appears to be more uniform than on the West Coast?—Yes; they have not been disturbed there.

49. Have you greater hope of a large supply of coal at Mokau?—The coal is associated with sandstone, which is tolerably even in texture. It passes under the same limestone as you find it at Cobden. There may be great disturbances, and it is just likely that they will facilitate the working of the coal instead of the reverse.

50. How long is it since you were up at Mokau?—Six or seven years. I was the first to go through the King-country. I got out 5 tons of coal there the first time I went.

51. We were much struck by the uniformity of the seam, the sandstone roof, and the evenness of the coal; but, of course, there was no great distance of it worked?—Very likely. There is similar coal up the hill, and it is very thin. I was there in 1877, and took out a trial quantity.

52. Do you think we can continue to allow our coalfields to be opened up by every one who chooses to come along and take possession of them?—I have always been of opinion there should be very careful conservation of our coal, and that opinion has been strengthened by what has come out by the workings. By using other people's coal you save your own.

53. *Mr. Proud.*] Still, there is plenty of water-power in the country when the coal is gone?—Yes.

JOHN HAYES, Inspecting Engineer to Mines Department, examined.

1. *The Chairman.*] What are your functions?—Practically, those of adviser to the Government.

2. Have you any control over the Inspectors of Mines?—No. I confer with them, but have no real authority over them. I may say that they are administrative officers under the Coal Mines Act and the Mining Act, while I am not an administrative officer in charge of a district.

3. You know the Westport-Cardiff Mine?—Yes.

4. When did you first visit it after the fire on the 28th January, 1900?—Roughly, I think, about the end of February.

5. Before going into the matter which you found to exist at the date of your vist, I will ask you to look at this plan, which is a copy of your own plan. [Plan produced.] You are aware that on the 28th January a fire was discovered in the mine, which was afterwards located as being at the point marked with that cross [Location referred to.]?— Yes, that was so, I believe.

6. What, in your opinion, ought to have been done at the moment of discovery, or as soon as possible thereafter, to deal effectively with that fire?—In answering a question like that I should be entirely guided by the circumstances; and, not actually seeing the condition of affairs at the time, one can hardly say what he would have done.

7. I will call your attention to the evidence of Mr. Tennent. He says that on Sunday, the 28th January, he went into the mine by way of the main entrance, and proceeded round the first curve till his light was put out by gases. He says that he could do nothing that night to reach the seat of the fire, so he had brattice nailed down across the mouth of the drive. On that statement have you any comment to make?—Just this: that I consider his object in doing that would be to shut in the products of combustion.

8. I am asking you if you have any comment to make on his statement, that he went into the mine as far as the first curve, till his light went out; and, further, that he considered nothing more could be done that evening?—No, except that the mine had ceased working, and the manager had left. Mr. Tennent got there on the Sunday night, and to do anything he required strength and help.

9. That is obviously the case; but have you any reason to suppose the strength was not on the ground?—I do not know whether it was or not.

10. Well, if I tell you there were men in the neighbourhood that could have been got together—from a dozen to twenty—does that alter your views?—It is a difficult question to answer, because you want to have an intimate knowledge of all the circumstances before you can give an opinion. What I said just now is that I take it that his object in temporarily sealing that place off was to shut in the products of combustion, which would tend to smother the fire. The only way to act so as to get forward to the seat of the fire when his light was put out was to carry temporary ventilation in with him, and of course he might not have had sufficient material on the ground to carry brattice in with him. It is a long distance from the mouth of the mine. It would be about 30 chains.

11. As a matter of fact we are told there was an ample supply of material to hand, especially brattice-cloth, and there were men living in the neighbourhood, who, as a matter of fact, were collected within the next day or two. I want to know whether you can help us in forming a judgment as to Mr. Tennent's failure to take further action on the Sunday evening?—I should look at it, first of all, in a practical light; and, in so doing, I should consider it would be very foolish for any man to adopt any system or method in a haphazard way. He should, first of all, acquaint himself with the facts of the case as far as possible, and should have some data to guide him. An opinion cannot be jumped at.

12. What was there for him to learn—it was not a strange mine to him?—No, it was not a strange mine, but he would naturally require to ascertain the conditions of the workings and other places before he could form an opinion; and, speaking as an ex-mine manager of considerable experience and responsibility, I should want to get all the circumstances into my mind before deciding on any plan. Then, again, I understand the mine was in the hands of the company, and therefore the onus of anything of that sort would rest on the company, I take it.

13. I will read the evidence I took from Mr. Tennent and Mr. Mitchell, so that you will be able to understand the position. [Evidence read.] You see that on the Sunday they discovered the fire; they did not do anything on the Sunday night, and on the Monday Mr. Dixon and Mr. Tennent went into the mine, but they decided they could do nothing until they erected the fan?—I think that is very clear, and that they were extremely wise in the erection of that fan. One point I wish to impress upon you is that the conditions here are altogether different to the conditions you would find in deep and solid ground. Here you had a case where there was no definite ventilation, but where a current was puffing one way and then another. I think you will readily understand that, with an air-current baffling one way and then the other, and carrying with it all the smoke and products of the distillation of the coal, it was important and essential that a decided and reliable air-current should be established in order to arrive at the seat of the fire. I know that some people who have had no experience of these things rather ridicule the idea; but I say that if they had the experience they would think and speak differently. A case occurred in a Yorkshire

colliery a few years ago where fires were found to exist after, and as the result of, an explosion. They had furnace-ventilation, and after the explosion the ventilating-furnace fires were allowed to die out. Before they could bring about a satisfactory state of affairs to enable them to seal the fires off they had to obtain and erect a fan, and get it to work, in order to establish a reliable current so that the men could go in with safety to the fires and seal them off.

14. Did they, in such an instance, take the current of air from the fan straight on to the fire without taking up a brattice or other mid-subdivision, so as to cause the air to return before striking the fire?—In that instance it was not necessary to divide the intake, because there was a separate return air-course.

15. In this instance, assuming there was no division put in this intake, would not the effect of erecting a fan in the way described be to cause a draught upon the fire, and consequently greater fierceness in burning?—It might to some extent, but I do not think to any large extent, for the simple reason that this fan would offer comparatively a slight pull in view of so many openings to daylight.

16. *Mr. Lomas.*] Was it necessary for any air to go on the fire at all?—I do not think that it was—that is, on to the fire itself.

17. Supposing he had put a stopping across the mouth of that mine-entrance and erected a fan on the one side, and took the brattice in with him, would that not have saved the air going over the fire at all?—I dare say it would.

18. Do you think the proper thing to do was to keep the air off the fire altogether and to seal the place off?—It might have been better to have done so had such been practicable.

19. As a practical engineer, you consider it would have been better?—I would like to place myself in the same position, and then say.

20. Is that not what is customary?—Yes; to carry the air in with you as you go along.

21. Supposing life had been at stake, would you not have done that?—Had there been life at stake, I should have endeavoured to carry the air in with me; but not having a knowledge of the actual conditions at the time it is difficult to give an opinion.

22. *The Chairman.*] In one part of Mr. Tennent's evidence he says that to have sealed the fire off close up to where it exists would have required twelve stoppings: I have never been able to discover half the number?—I never heard that expression. There are a lot of openings into the mine which would feed the fire with some air, and when I was over the ground it was cracked to the surface. It is quite a different thing dealing with shallow ground with so many openings, and dealing with solid ground at considerable depth.

23. *Mr. Lomas.*] In the event of an explosion, every stopping is blown down?—Very often.

24. Is not that the position of these openings—could they not have sealed the place off as they do after an explosion?—I dare say they could, but only by taking the air in with them.

25. If there had been fifty openings to daylight, could they not have shut them off?—Yes; but at the same time I am inclined to think that this fire at the point marked on the plan was a very small affair as compared with the fire in the worked-out ground.

26. I understand your opinion to be that, taking in the air by means of a fan, and a return air-way caused by dividing the tunnel, that bratticing would only be effective in case there was but one local fire to deal with?—Yes. If the Hector block was on fire, as I believe it was, no good could have been served by taking in this bratticing in the way suggested.

27. What are the reasons for your opinion that the Hector block was seriously on fire?—I judged that from my visit to the place a few weeks afterwards. In going over the hill I found cracks to the surface, and at those cracks the products of combustion were being discharged. Then, shortly afterwards active fire was discovered in those little stumps of coal left at the outcrop. You might almost call it a fringe between the outcrop and the worked-out ground. Had the fire only existed at the point where it was first seen by Mr. Dixon, I think the products of combustion would have been ample, after the stopping was put near the main entrance, to have extinguished it—that is, if the fire had been local.

28. *The Chairman.*] On the 29th January Messrs. Tennent and Dixon issued this report: "We have therefore decided that no further risk to human life shall be incurred, and that a reliable current of air should be established to obviate this." In your opinion, was there risk to human life?—The risk would be by asphyxiation. There would be risk by the air baffling about and bringing smoke and gas with it.

29. It appears to have taken from Monday to Friday to erect a fan: in your opinion, was there any undue delay in this?—I should not think so, considering the material had to be got, and the distance it had to be brought over the hill.

30. Everybody is agreed that after Friday there was no means of extinguishing the fire except by sealing off the whole mine?—Yes, I believe so, from what I have heard.

31. You have read the report issued by Messrs. Shore, Alison, and Foster?—Yes.

32. They comment on the report of the 29th January by Messrs. Tennent and Dixon. Messrs. Tennent and Dixon say, "In the meantime all the openings to day are to be sealed off by close bratticing, and no workmen are to enter this section of the mine until authorised"?—Yes. What is meant by "day" there is to "daylight" at the outcrop.

33. This is the comment which Messrs. Shore, Alison, and Foster make: "In consideration of this report (No. 2), we cannot but express our surprise at the method adopted of sealing off the mine by brattice-cloth stoppings, and must state that if at this point had temporary stoppings of boards lined with clay been used we consider the seat of the fire could easily have been located in a day or two"?—That is another case of "put yourself in his place." Those in charge had to work with what material they had at hand, and would make the stoppings as tight as possible. It was only a temporary expedient. I am surprised that men should express themselves in that way.

34. They go on to say "The utilisation of a fan to create a strong draught through a mine on fire was contrary to recognised custom of dealing with fires"?—That, I think, is hardly correct. What struck me on reading that portion of their report was that the persons who reported either had not had the amount of experience desirable, or had not kept themselves in touch with recent practice.

35. You say that the utilisation of a fan to create a strong draught through a mine on fire is according to recognised practice?—I would not say a strong draught, but sufficient to enable the men to get in with safety. As I pointed out in the case of a Yorkshire colliery previously referred to, this plan was successfully adopted. I may also refer to Dr. Le Neve Foster's views in connection with the Snaefell disaster, where a mine got on fire where they had natural ventilation. He is reported to have clearly stated that had a fan been established the difficulty and danger could have been got over, because, although a temporary increase of the fire might have taken place, yet that was only a means to an end. Dr. Foster is Chief Inspector of Metalliferous Mines for Great Britain and Ireland.

36. This is the report of the 2nd February, signed by Mr. Dixon: "The fire in the mine was located to-day in the back heading of long jig. Before entering the mine the fan was started, and a measured current—10,400 ft.—of air was obtained. The party consisted of J. Dixon, A. Mitchell, R. Broome, J. Clarke, and J. Smith. The party travelled to a point some 29 chains on main road, returned to long jig back heading, and discovered the fire some chains up said heading. The main road was closely bratticed off, and air diverted up heading. Success attended the efforts, and at the same time the mass burst into flame for a distance back of 10 or 12 yards. Falls continued, one very heavy one taking place. The fire being so active and falling roof so continuous, it was decided to abandon efforts to reach the seat. It was positively unsafe to attempt anything of the kind. I therefore decided to withdraw the workmen, and close the mine as far as possible until further considered and seen by the Government Inspector. The heading was closely bratticed at 5 p.m., also all openings to mine reclosed, practically sealing the mine by temporary means. From my close observance of the conditions, I hereby state that the fire is extensive, and the only safe remedy is to seal off the affected district as soon as possible." Messrs. Shore, Alison, and Foster comment on that as follows: "This report bears out statement *re* use of brattice-cloth stoppings, as there appears no reasonable doubt but that fire was spreading up till this time through leakage of stoppings. The turning of main current of air up heading had the effect which any one with knowledge of underground fires would have expected, and it was not to be wondered at that the mass burst into flames upon getting current of fresh air, the natural sequence being that falls would take place afterwards." There you have the accusation and the defence, and we want your opinion, as we look upon you as an independent witness?—Mr. Dixon, in carrying the air up there as he did, would, I take it, have for his object the sealing off of the fire by stoppings, no doubt considering at the time that this was the only seat of fire. Now, it is well known to people who have had anything to do with these things that, when you get air within a reasonable distance of it, the fire will draw the air to it so long as means exist for the outlet of the products of combustion; and I take it that, owing to the numerous outlets from the mine, these means did exist, and that, while Mr. Dixon was doing his level best to get to this point in order to seal the fire off, the drawing-power of the fire would tend to create a certain amount of current and bring it towards itself. If falls took place, these falls would disturb the air and force it on to the fire with greater force, I believe, than the actual current flowing. If you took a door and forced it violently, you would get similar conditions to those which, in conjunction with flame, occasion explosions in the dust-laden atmosphere of flour-mills. I say that those falls occurring would tend to increase the flame, but I cannot hold for a moment that those falls were due to the amount of air which Mr. Dixon was endeavouring to carry with him for the safety of the men in approaching the seat of the fire, so far as he knew it. I think that in itself is conclusive evidence that fire existed in the old worked-out ground higher up.

37. Mr. Mitchell states that Mr. Dixon took a return through the second stenton from the long jig close to the fire: would that, in your opinion, have the effect of enabling the men to travel without furnishing a draught to the fire?—It would enable them to travel to the point, but it would give a certain amount of draught.

38. Looking at the statements of Clark and Mitchell, can you suggest anything else that could have been done?—They seem to me to have done the very best thing—to have carried brattice in from the most available place where a small current had been established. It would have taken days to have carried it in from the bridge entrance, as has been suggested to me, so as to have provided sufficient air for the men to have worked at the fire.

39. Would that have been effective?—I do not know that it would have been. They coursed the air.

40. When they took charge of the air they coursed it?—Yes. Its natural flow would have been right along the main haulage-road to the fan. As I see more of it, it makes me think they did right.

41. Have you studied the report of Messrs. Shore, Alison, and Foster?—Not very carefully.

42. Do you understand it?—I think so. There are some points I cannot understand.

43. From reading that report, I want to know what it is they condemn. First of all, they condemn the use of brattice instead of timber?—Yes; but that is a very minor item, under the circumstances. Then, they condemn Mr. Tennent for using a 2 in. pipe instead of 4 in. or 6 in. pipes. When I was there a ¾ in. pipe would have been ample to carry anything in the way of water that I saw coming.

44. Take the proceedings from the Monday down to the following Friday?—I have been over the report and marked it, and I admit that I do not know what it is they condemn. After referring to the utilisation of a fan, they say, "The turning of main current of air up heading had

the effect which any one with knowledge of underground fires would have expected, and it was not to be wondered at that the mass burst into flames." The object of turning the main current up the heading was to enable the men to get to the seat of the fire in order to block it off.

45. If the air was coursed, as stated by Mitchell and Clark in their evidence, would the current induced by the fan have any mischievous effect upon the fire?—I do not think it would be anything very serious, because they would not get it so tight that the whole 10,000 ft. of air would go in; and even 10,000 ft. of air in a place of such large area as exists generally in that mine would not have a very great velocity, therefore it could not act as a blast.

46. Could they have adopted any other course?—I do not think so. In my own experience I have had to course air up to the seat of a local fire in order that the burning stuff might be filled out and sent to the surface.

47. They condemn the use of bratticing for the turning of the draught of air upon the fire?—They condemn the use of brattice-cloth as a material for stoppings, instead of timber; but they have not considered that sawn timber was not available.

48. *Mr. Proud.*] There was a sawmill close to the locality?—It is some distance away, and it would have taken time to get timber.

49. *The Chairman.*] They condemn the turning of the draught of air on?—Yes; and under the conditions which existed I disagree with them very strongly.

50. Have you endeavoured to discover from this report what ought to have been done?—This is the point that appeals strongly to my mind: the persons who reported were unable to see the actual conditions. They were unable to get in, and therefore, I take it, they could not have had a correct knowledge of the surroundings at the time. To put men in to work while the air was baffling about was simply to murder them; a positive ventilation was an absolute necessity. Mr. Dixon, I am glad to say, was always in the front, and always where the danger was.

51. Can you help us to form any opinion as to when the fire originated, and where?—I was only in the mine once before the fire, and that was after the company ceased active operations—it was, possibly, three months before the fire. I travelled from the main entrance through the main haulage-road and into the Bridge section, and on my return I was up the long jig in the Hector block—in the lower end—and what struck me at the time—and I remarked the fact to Mr. Broome, who was then in charge—was that the mine workings were singularly free from falls of top coal and accumulations of *débris*. Of course, that is where the ground is standing on pillars, and it is quite possible that the fire may have originated through the subsidence of the worked-out ground, combined with the presence of coal matter of an inferior quality, such as is often left in mines. The falls of stone in the worked-out ground would cause a grinding action, and small particles of carbonaceous matter would absorb oxygen rapidly. That is a frequent cause of underground fires all over the world.

52. Do you know, of your own knowledge, anything as to the quantity of available coal left in the mine?—I have not computed it.

53. Are you able to say, of your own knowledge, whether there has been much coal lost by the mine having been closed?—Not very much of a commercial character—that is, as I regard it from an Old-Country standpoint. The whole affair is only small. With respect to the Bridge section, the company were working that when they ceased operations, and this was the source from which the whole of their coal-supply was then being got. As you see from the plan, the ground is very much broken up by faults; and, speaking generally, the coal is extremely soft and friable in this Bridge section. Near the outcrop the coal was harder, and a little hard coal may be got further in; but, taking it as a whole, under the ordinary conditions of the coal market existing eighteen months ago, the stuff was unsaleable—that is, the coal at the working-faces at that time.

54. How much is there left in the Hector block?—Simply what you see in the pillars. The ground in the dip of the main haulage-road is cut up by faults. The amount of coal standing in pillars in the Hector block is comparatively small.

55. At all events, the mine-owners were of opinion that it was of no value?—Yes. And the first time I was there, in October, 1899, I reported that the hope of the colliery lay in the development of the Cave area.

56. Now, I understand your opinion is that, putting aside the individuality of Mr. Tennent or Mr. Dixon, no time was lost in getting to work to subdue this fire?—I do not think so. The only time I am aware of having been lost was due to this: that young Broome, the brother of the late mine-manager, happened to be in Westport when he got the telephone message stating that the fire had occurred. Had he been on the premises no doubt the fire would have been discovered before.

57. What have you to say with regard to Mr. Dixon and Mr. Tennent leaving the place on the 29th January?—Really, the onus of the thing would rest on the company. Mr. Dixon was temporarily acting for the Westport Cardiff Company, and what his arrangements might be with his own company—the Westport Coal Company (Limited)—I do not know. Mr. Tennent had his own duties to attend to.

58. Do you know what duties he had to attend to?—I think it was the supervision of an examination for mine-managers' certificates at Reefton.

59. In comparison, was that of any importance compared with staying at the fire?—From his position, I should think he would have to be guided by the circumstances of the case at the time; but he had been appointed supervisor of the examinations, and naturally would have to attend them, because the examinations were held on the same days all over the colony. At that time, and until the Government took the property over, Mr Tennent was not in charge, but was giving assistance to the manager who had been engaged temporarily—that is, Mr. Dixon.

60. Do you not think it was very unfortunate that both Mr. Tennent and Mr. Dixon had to leave the locality on Monday?—Yes; unless they knew they could leave matters in the hands of

people they could trust. I know that, as a mine-manager at Home, I have frequently had to leave important matters in the hands of others until I could go back to them myself.

61. *Mr. Proud.*] In the case of a fire?—Not exactly in the case of a fire; but I remember one instance of the breaking-down of pumping machinery, which might have meant the drowning of a large mine, and that was serious enough.

62. *The Chairman.*] I suppose these examinations could have been conducted by somebody else, or postponed?—Postponement might have been out of the question, but the appointment of another supervisor might have been made, had there been time.

63. Why was postponement out of the question? I never knew any consideration to be given to candidates for scholarships, or in any other case, or where the convenience of the candidates was looked upon as the very first importance. Did Mr. Dixon have to go and attend these examinations?—No; he had nothing to do with them.

64. Where did he go on the Monday?—I suppose he would go back to his own place at Granity.

65. We took a great deal of evidence with regard to the operations which took place after they had come to the conclusion that there was nothing left to do but to seal off the mine: you were there about the end of February?—Yes.

66. Will you tell us what you found there?—I found some air stoppings were put in at No. 1 and No. 2 [references to numbers on copy of plan prepared by witness], and going across the hill there were cracks to the surface. On striking matches I found that the carbonic-acid gas was so strong that the minute you put a match to the crack it put the light out. That was on the surface on the hill. I recognised then this fact: that further falls must have occurred. I knew that those cracks were due to a subsidence in the strata in the worked-out ground, and I naturally considered that if there were many of them some might act as intakes and some as returns; and, if so, that the fire would be air-fed to some extent. I suggested to Mr. Tennent that it might be a wise thing to put water stoppings in there, so that the water might accumulate in the mine as high as possible, in order to prevent the spread of the fire and confine it to reasonable limits.

67. *Mr. Lomas.*] Did you not know that there was fire discovered on Monday in the main road?—I understand that the falls from the roof flashed the fire down there. When I was there they had air stoppings at 1 and 2. Then I suggested that these air stoppings at 1 should be backed up with the water stopping. I found that Mr. Tennent had not only anticipated the idea, but had arranged with the company to have this done, and it was subsequently done.

68. *The Chairman.*] Going back to Messrs. Shore, Alison, and Foster's report: do you understand that there is any condemnation with regard to what was done after the dam was commenced?—I do not know.

69. They say that "to put in a new water-tight dam at A we consider would be an unnecessary expense"?—That was after it was discovered that water had leaked from the first dam that was put in. I am referring to the dam that was put in behind the air stoppings, and I think the report quoted refers to reconstructing this at that point.

70. They go on to say, "The difference in level between points A and F, the mine-exit, is 65 ft., and to reach seat of fire would require a further 30 ft., making a total vertical rise of over 90 ft. from dam at point A"?—They took it by aneroid reading, and so did I. I took the average of three distinct readings to get that, and we do not quite agree.

71. "We are confident, should the water be dammed at point A, before it would drown out fire it would burst through the surface at point marked X"?—To show that they are entirely wrong in that, I will state this fact: that since then that dam has been rebuilt. The water has not burst through the point they refer to, but it has found its way out at the stopping at the bridge entrance (2 on plan).

72. How long is it since you were there?—I was there last week.

73. Is the place warm now?—It is a little warm in one place below where the hose was directed on to it.

74. Is there any sign of fire coming out of the outcrops?—Only a little bit, and that is under control.

75. "Were it possible to get a dam put in at B or N, we would recommend the erection of one there"?—If you put one at N only, the water would simply rise about the inner stone drive, and get out. If a dam was put in at N it would simply raise the water one pillar length, and the water would come out of the back heading, which would be ridiculous.

76. Do you know where B is?—A dam there would have been of some value. An attempt was made to get into B, and I was there at the time, but it was found that just inside the stoppings at 1 there was a tremendous fall, roof-high; how far it extended I do not know. The fan had then been moved from the bridge and put up at the mine-entrance. It was arranged by Mr. Dixon and Mr. Tennent jointly, their object being, if possible, to drive back the black damp to enable them to get in the dam here. A stopping at B would have been very good, but the only advantage it could possibly possess, as compared with the stopping at what they call A, was the problematical bursting of the ground at the outcrop of the North block. Experience has proved that, although the dam has been rebuilt at A, the water has not burst away either at the outcrop or over the worked-out ground of the North block.

77. They say the "method of getting into B has been shown before:" do you know where that method is shown?—No; and I am not sure that they knew the conditions.

78. Would there have been any difficulty in getting into B?—Yes; I believe there was on account of the baffling of the current of air.

79. They go on to say that "another watertight dam would require to be put in at F"?—That would have made two dams necessary instead of one, and would be of no value whatever in conjunction with a dam at N. I understand there was a fall that blocked off the power of the fan

altogether, and this altogether precluded the possibility of men getting in so as to build a dam at B.

80. When did you say you were there last?—Last week.

81. How would you describe the condition of things now?—The dam at the mine-entrance seems to be holding its water, also one which has subsequently been built at bridge entrance. Where the old subsidence was at 5 the water was overflowing, so that it plainly shows that the rebuilding of this dam near the mine-entrance has been quite effective. When I was there in the early part of July we tried to get in to put a stopping at 4, having in view that we might possibly raise the water at a higher level on account of the subsidence; but, in order to force the black damp back to enable us to get in, Mr. Tennent and Mr. Dixon shifted the fan over to the mine-entrance, but it took the fan blowing, if I remember rightly, about ten hours to enable us to get in 4 ft. It was forcing—the air being trunked in—and with the doors open the fan was passing about 22,000 ft. per minute. We broke the old air stopping, and gradually by diffusion we got the black damp diluted to some extent. We got through the air stoppings only to find that the tunnel was blocked roof-high by an accumulation of *débris*, which I think was the result of some falls having occurred further in, the *débris* apparently having been washed down by water. A little water was filtering between the top of the *débris* and the roof. There is one point there which is rather interesting. The *débris* in rushing down had carried some of the props with it; it had also evidently compressed a certain amount of air against the stoppings, and thus formed an air-cushion which prevented the *débris* from actually reaching the stopping. Beyond the gap so caused by the cushioning of air the *débris* was like a big solid dam. How far it extended I do not know, but I got in with others through both dam and inner stoppings. Messrs. Shore, Alison, and Foster never got through the inner stopping.

82. *Mr. Proud.*] Do you think the main haulage-road is destroyed?—I should think it is badly knocked up.

83. Do you not think that while they were shifting that fan they should have taken some steps to enter the mine by batticing or using a hand-fan?—I do not think they had a hand-fan. With the air baffling in the way in which it was I could hardly say. They might possibly have attempted to get in a little at the bridge end by carrying a brattice in with them; but in the light of what is now known of the circumstances I do not see where the advantage would have been. I think the time occupied in shifting the fan was smart, when you come to think it was only four days.

84. It was only a short distance to take it?—There was the getting of the bricks from Waimangaroa to the place, and carrying them over the hill. There is certainly a little bush tramway for some part of the distance.

85. You mentioned that you thought there was fire in the Hector block?—I think there must have been.

86. Mr. Broome reports that he was through the whole workings on the 18th January, and saw nothing to indicate fire?—From the 18th January to the 29th is eleven days.

87. Messrs. Peter Martin, McIndoe, and Keal were in the mine a few days before the discovery of the fire. If there had been any fire in those broken workings there would have been some indication of it?—Fires sometimes break out quickly. In the brown coal of Southland I have known a fall to take place in a bord, and in one night to be actually in flames.

88. Do you not think these men would have found some indication of it?—Yes, had it been smouldering at the time they would, but not if it was occasioned by a fall after they were there. In St. Helens, Lancashire, I have known the same kind of thing: fires occuring quickly after a fall of rubbishy coal.

89. Of course, a great deal of what you say is theoretical, seeing that you were only once in the mine?—Yes.

90. Up to the time the air was turned up to the fire it was only smouldering, and there was no actual flame?—It seemed from the evidence I have heard read that there was a fall that took place which acted like a blast, and caused a most active fire. I understand there were several very heavy blasts—no doubt the result of falls—that men working about there mistook for explosions.

91. Do you not think that Mr. Dixon should have taken prompt action from Friday night until Monday morning without waiting for the Inspector's return?—Well, Mr. Dixon was a volunteer, so to speak, and might not have cared to incur too much expense.

92. In the case of a mine being on fire what steps would you take to extinguish it?—The first thing I should do would be to try and locate the whole thing, taking all possible surroundings into consideration, and being guided by circumstances. It might mean flooding, building, stoppings, or sealing the shafts. I know of one case where the circumstances were such as to enable us to put in water stoppings.

93. Would you lose any time in locating the fire?—No; that is the first thing I should endeavour to do.

94. Do you think time was lost in this case?—I think not. I think they used their best endeavours to locate it, and the absence of reliable ventilating-current was, of course, very much against them, the air baffling backwards and forwards.

95. *Mr. Lomas.*] In the event of there being a fire, say, in this Hector block, where the pillars had been taken out, do you think it would be possible for that fire to burn, and the smoke to go through the broken ground without going into the ground at all, previous to the fire being discovered?—It would fill up all the open broken ground to the rise of it.

96. Supposing a certain amount of small coal had been left in the block which they could not get out, is it not possible, supposing the fire was actually smouldering there, that it might escape into the broken ground without going through the fire at all?—The water going in would give oxygen and support combustion, and would help to carry the fire on to the pillars.

97. With regard to the work that was done when they were in on Friday, do you think anything could have been done to put in stoppings in this place to prevent that fire getting down to the road, instead of leaving it until Monday?—Looking at it generally, I should say there might.

98. From all we can hear, and that you know, there would be no difficulty in getting along the road from the entrance when they could get up 3½ chains: could they not have put in fire stoppings and sealed the whole of the top part off from the main heading?—Judging from what I have heard, I think they could have done that.

99. And so saved the fire going down the main road?—Yes; but I understand there were falls from the roof, and conditions of danger to life. To seal the place effectively they would have had to seal it across the main road.

100. My point is this: what could they have done up the main road?—If the conditions were favourable to do it they could have put stoppings in, but they would have had to be of a very solid character.

HUNTLY JOHN HARRY ELIOTT examined.

1. *The Chairman.*] You are Under-Secretary for Mines?—Yes.

2. Are the Inspectors of Mines under your control?—They are under the departmental control as departmental officers, subject to their powers under the Act.

3. Is there any difference of rank between the Inspectors?—We have Inspectors and Assistant Inspectors, but the Inspectors are responsible.

4. The Inspectors are all of equal rank?—Yes.

5. There is no Chief Inspector?—No.

6. There is no such officer provided for by the statute?—No.

7. Mr. Robert Tennent is Inspector of Mines for what district?—West Coast, Nelson, and Marlborough. He is an Inspector under the Mining Act as well.

8. He has held that appointment for how long?—From July, 1897. He succeeded Mr. Cochrane.

9. Do you know what his qualifications are—does he hold a mine-manager's certificate?—Yes.

10. When did you first hear of a fire existing in the Westport-Cardiff Mine?—The first we heard of it was by letter from Mr. Hargreaves, the manager of the Westport-Cardiff Company in Christchurch. He wrote on the 29th January.

11. Did you first hear of it from Mr. Tennent?—Mr. Tennent was at Westport when the fire broke out. The first I heard of it from Mr. Tennent was on the 1st February, when he reported from Reefton.

12. At that time was the Westport-Cardiff Company in full possession and control of the mine?—Yes.

13. Had any steps been taken by either the company or the Government towards the resumption of possession by the Government?—No.

14. Then, I understand the condition of the tenure had not at that time been altered in any way whatever?—No; it was a private lease.

15. The mine was entirely in the possession and under the control of the company?—Yes.

16. The fire was reported to Mr. Tennent on Sunday, the 28th January, 1900?—Yes.

17. He immediately proceeded to the mine, and in doing so he was acting within the scope of his duty?—Yes, certainly. He remained there until the following day, when Mr. Dixon, manager of the Westport Company's mine at Granity, who had been asked by the Westport-Cardiff Company to advise them in the emergency, came to the ground.

18. Had Mr. Tennent at that time any power or authority to incur any liability on behalf of the Government?—No.

19. We will assume, for the sake of convenience, that it was a matter of emergency: if Mr. Tennent had incurred a liability of, say, £100, in dealing with that emergency, what would have been the probable attitude of the department towards him?—He certainly would have been asked to explain why he had not asked for authority to spend the money.

20. Was authority to expend money on behalf of the Government ever given to Mr. Tennent in connection with this mine?—Yes.

21. At what date?—On the 2nd May.

22. Can you tell us why it was not given before? If not asked for, why was it not asked for?—Because the company was responsible for the mine. On the 3rd May we telegraphed to Mr. Hargreaves informing him that Mr. Tennent was instructed to deal with the fire, and that a demand would be made upon the company for any expenditure incurred by the Government.

23. Were you aware, prior to the 28th January, that the mine had ceased working, and was practically unwatched?—Yes, because Mr. Broome saw me on his way down to Kaitangata, and explained matters.

24. At what date?—Just about that date.

25. For how long a period had you been aware that the mine had not been working?—For a long time. There had been constant appeals on behalf of the company to the House for relief.

26. It appears now that for four months, so far as the mine itself was concerned, it was not inspected daily by the company, and it was severely left alone; and we want to know for how long a period you had been aware that that state of things existed?—I had no definite information, and do not know. We knew generally that the mine had not been working, and we had had a long correspondence with Mr. Hargreaves in reference to relief, and he had several interviews with Ministers.

27. A good deal has been said as to the offer of a person to put out the fire for a sum of money —£500, or thereabouts: have you any knowledge of that?—No such offer was ever made to the Government. I have heard that there was such an offer, but it never came officially before the department.

28. Consequently you do not know that it was made?—No; it came up before the Goldfields Committee.

29. Will you give us the departmental view of Mr. Tennent's functions between the 28th January and for a month or two subsequently with regard to this fire?—He was only there to advise as an experienced man. On the 28th April we telegraphed to him to see that the interests of the Crown were duly protected. Previous to this we had left it to the company.

30. Have you any idea what the company has spent in trying to suppress the fire?—No.

31. Do you know what the Government have expended?—No; but I could let you know. £50 was the first amount authorised, but we have spent a great deal more than that. The amounts expended are as follows: A. Mitchell, caretaker, £120; wages of men employed by Mr. Tennent, £205 11s.; railway freight, £2 7s. 11d.; supplies, timber, cement, logs, &c., £93 4s. 4d.; J. Dixon, fee, £13 2s. 6d.; W. M. Shore, fee, £57; John Foster, fee, £31 10s.; R. Alison, fee, £40; J. Hayes, travelling-expenses, £13 10s.; P. Martin, removing plant, £50: total, £626 5s. 9d.

32. I think it is evident from Mr. Tennent's wire to you that he knew you were acquainted with the fire: the telegram assumes that you knew something about it?—I suppose he did. It was public talk, and was telegraphed by the Press Association, so that everybody would know.

33. When were you first apprised of the fire by Mr. Hargreaves?—As I said, on the 29th January.

34. That letter would not reach you for some time?—No; it was by letter regretting to report that a serious fire had broken out in the Cardiff Mine. The first telegram I have on the file is from Mr. Tennent, at Reefton, dated 1st February.

35. You know that Mr. Tennent left Cardiff on the Monday, and went to Reefton?—Yes.

36. Do you think that was a discreet thing to do?—People had assembled for examinations, and some one had to do the work.

37. But we have to compare the importance of the two duties: could not some one else have made the examinations?—We cannot keep people waiting for their examinations.

38. *Mr. Proud.*] With a mine on fire?—Mr. Tennent was only an advising officer. It was the company's duty to look after their own property.

EXHIBITS.

EXHIBIT 1.

Mr. H. SOWERBY, Mine-manager, Ironbridge, to Mr. R. TENNENT, Inspector of Mines, Westport.

DEAR SIR, — Denniston, 8th August, 1900.

I have to report that J. Hart, one of the machine apprentices, whilst engaged at his work last night, was injured about the head by some coal coming away from a parting at the back of the holing. The doctor cannot definitely state whether it is anything very serious as yet, but I thought it best to advise you of the matter. I am, &c.,

HENRY SOWERBY,
Mine-manager, Ironbridge.

R. Tennent, Esq., Inspector of Mines, Westport.

Mr. H. J. H. ELIOTT, Under-Secretary for Mines, Wellington, to Mr. R. TENNENT, Inspector of Mines, Reefton.

(Telegram.)

WAS a recent serious accident to a lad in Denniston Coal-mine reported to you, and if inquiry as required by Act?

Mr. R. TENNENT, Inspector of Mines, Reefton, to the UNDER-SECRETARY, Mines Department, Wellington.

(Telegram.)

REPORT not received of a recent serious accident to lad in Denniston Coal-mine. Have wired for particulars.

Mr. TENNENT, Inspector of Mines, Reefton, to Mr. A. B. LINDOP, Denniston.

(Telegram.)

Was a lad seriously injured at Denniston Coal-mines? If so, reply when, and giving particulars.

Mr. A. B. LINDOP, Denniston, to Mr. R. TENNENT, Inspector of Mines, Reefton.

(Telegram.)

MR SOWERBY wrote you on eighth, advising accident to lad named Hart, engaged with machines, by fall of coal. Lad not seriously hurt; am informed will be at work in about week.

Mr. R. TENNENT, Inspector of Mines, Reefton, to the UNDER-SECRETARY, Mines Department, Wellington.

(Telegram.)

MACHINE lad named Hart was slightly injured by fall of coal Ironbridge Mine, Denniston. Will be at work in about a week. Accident reported on 8th instant.

Mr. A. B. LINDOP, Denniston, to Mr. R. TENNENT, Inspector of Mines, Seddonville.

(Telegram.)

COLVIN got hurt by fall of coal whilst filling at Ironbridge. Doctor says injuries not serious; small bone of ankle broken. Sowerby wrote you yesterday.

EXHIBIT 2.

IRONBRIDGE MINE.

CHECK INSPECTORS' REPORTS on above Mine, taken from Mine-manager's Report-book.

10th October, 1898.—We have this day examined all working-places, travelling- and trucking-roads, airways, and found them all safe, with exception of one or two places where there was a little loose coal overhead, which, on being pointed out to manager, was immediately attended to. Measured air at return Cedar, close to working-places, which registered by our anemometer 9,250 ft. per minute (no allowance for friction, not being positive as to machine). The air in the lower workings of Cedar was dull, apparently from powder-smoke; and from information received had been worse some days previously. The manager promised to use his best endeavours to have blasting done as far as practicable in night-shift. If this is done no doubt the air will be much clearer. Total air at face, 40,000 ft. per minute.—J. HOLLOWS, F. LITTLE, Check Inspectors.

25th August, 1899.—In company with Mr. Milligan, mine-manager, we this day examined all trucking, travelling-roads, and working-places in Cedar seam and Kiwi heading, Ironbridge, and we found all trucking- and travelling-roads and working-places in good order, with the exception of the back travelling-road, which is very sloppy; but Mr. Milligan said he intended to have this remedied. The air registered in the return at face gave 18,978 cubic feet per minute.—JAS. PATZ, F. LITTLE, Check Inspectors.

1st December, 1899.—In company with Mr. Milligan, mine-manager, we, the undersigned, this day made an examination of the Ironbridge Mine, and found the travelling- and trucking-roads in good order. The faces were to all appearances safe and well timbered, and on the whole the ventilation was fairly good when we went round. The dip workings are ventilated with a fan. Karamea workings are naturally ventilated, and Kiwi with an electric fan.—JAS. PATZ, FRANK LITTLE, Check Inspectors.

4th June, 1900.—In company with Mr. H. Sowerby, mine-manager, we this day made an examination of the Ironbridge Mine, and found all trucking- and travelling-roads in good order, and ventilation good, with the exception of one or two places in Kiwi section, where the air was a little thick. The return from the Dip section, measured with machine, gave 3,465 ft. per minute.—JAS. PATZ, FRANK LITTLE, Check Inspectors.

Mine-manager's Report for Same Day.—In company with the two inspectors appointed by Industrial Union of Workers, I examined all travelling-roads, air-courses, rope-roads, and all working-places in Cedar seam, and found them all in good order, free from gas. Ventilation, except for a little powder-smoke in No. 2 Kiwi, good; shots just fired and face standing.—HENRY SOWERBY, Mine-manager.

15th September, 1900.—In company with Mr. Sowerby, mine-manager, we this day examined Ironbridge Mine, and found the places well timbered and trucking-roads good, and working-places to all appearances safe. The ventilation on the whole was good, with the exception of some places on the left side of the Cedar dip, where the air was very thick. The air measured in return at face gave 12,915 cubic feet per minute. The main travelling-road in places was very slippery and rough. We pointed this out to Mr. Sowerby, who promised to have it remedied.—JAS. PATZ, JOHN MOYE, Check Inspectors.

21st December, 1900.—In company with Mr. Sowerby, mine-manager, we this day made an examination of the various sections of the Ironbridge Mine, and found things in general in a very fair state, and the timbering well up to the faces. Trucking- and travelling-roads in good order, and the ventilation on the whole good. The air measured in the return gave 10,500 cubic feet per minute.—JAS. PATZ, JOHN MOYE, Check Inspectors.

COALBROOKDALE MINE.

CHECK INSPECTORS' REPORTS on above Mine, taken from Mine-manager's Report-book.

11th October, 1898.—We have this day examined all working-places, trucking- and travelling-roads, and airways in the following sections—viz., Cascade, Munsie's, and Big Dip—and found all safe. Air good in every section. In a few cases some negligence was noticed in the method of spragging, and on the men's attention being drawn to it it was immediately remedied. Air registered, upcast, west side Cascade, 27,000 ft. per minute.—J. HOLLOWS, F. LITTLE, Check Inspectors.

26th August, 1899.—We have this day, in company with Mr. Dunn, made an examination of the Coalbrookdale Mine, travelling- and trucking-roads, working-places, and return airways, and found the same in good order, with the exception of the road at present used by men as a travelling-road from Cascade to Munsie's section, which is not in a fit state for men to travel. The ventilation on the whole was very good, and the air in the return at face registered 37,422 cubic feet per minute.—JAS. PATZ, F. LITTLE, Check Inspectors.

Mine-manager's Report for Same Day.—I have examined the main roads and working-faces in each section of the mine, and found them all safe, well timbered, and ventilated. I also examined all return airways, doors, screens, &c., and found them in good order. The road referred to by the check inspectors is a water-drain, and they travel it by choice. There is no necessity for them to travel that way; it is perfectly safe.—WM. DUNN, Manager.

2nd December, 1899.—In company with Mr. S. Harris, underviewer, we, the undersigned, this day made an examination of the Coalbrookdale Mine, and found all trucking-roads in good order, travelling-roads likewise, with the exception of one place where the water had backed up; but Mr. Harris immediately sent a man to have this remedied. The faces were to all appearances well timbered and safe. Ventilation of Cascade: On the left side of rope-road the ventilation was very fair, and the air in the return gave 7,500 ft. per minute; on the right side the ventilation was fair, with the exception of the Lady Glasgow front heading, where the air was decidedly unfit for men to work in, and could with advantage stand improving. The air in the return gave 1,151 cubic feet per minute; Munsie's is naturally ventilated, and the air throughout was good.—JAS. PATZ, FRANK LITTLE, Check Inspectors.

Mine-manager's Report for Same Date.—I have examined the main roads and working-faces in Munsie's section, and found everything all safe and well ventilated. I found the fan stopped at the Cascade at 12 noon. The fireman had neglected to turn the tap to let the oil flow when he oiled the engine at 10 a.m. The water referred to by the check inspectors was on the old Cascade landing for endless rope, and is only used by the miners for coming out of the mine when they knock off work before the mine knocks off. The front heading in the Cascade or Lady Glasgow heading, referred to above, had been stopped until the back heading is brought closer up to the front heading.—WM. DUNN, Manager.

5th June, 1900.—In company with Mr. Dunn, mine-manager, we, the undersigned, made an examination of the various sections of the Coalbrookdale mines, and found them in good order, and the ventilation on the whole very good; trucking- and travelling-roads in good order, and the places were well timbered.—JAS. PATZ, FRANK LITTLE, Check Inspectors.

23rd August, 1900.—In company with Mr. Milligan, we, the undersigned, this day examined the Coalbrookdale Mine, and found all in good order; places well timbered, and trucking- and travelling-roads all safe. The ventilation on the whole was good. The air measured in return gave 41,832 ft. per minute.—JOHN MOYE, JAS. PATZ, Check Inspectors.

21st December, 1900.—In company with Mr. Harris, underviewer, we this day made an inspection of the Coalbrookdale mines, and found the trucking- and travelling-roads in good order and timber well supplied to the men, and the ventilation was on the whole good, and the general state of the mine was very fair. The air in the return gave 28,840 ft. per minute.—JAS. PATZ, JOHN MOYE, Check Inspectors.

EXHIBIT 3.

THE BULLER DISTRICT'S REQUIREMENTS.

REPORT read by Mr. A. D. BAYFEILD before the Chamber of Commerce Conference held at Christchurch, January, 1901.

AT the request of the Westport Chamber of Commerce I have the privilege of reading to this conference a paper on the subject-matter of coal, defence of and communication with Westport. At the outset I beg to say that to some extent this paper will be a reiteration of former expressed opinions—opinions which I venture to place before you with a hope that they be deemed worthy of consideration from the conference as representative of the Chambers of the colony.

Coal.—In dealing with this subject I intend doing so as relative to the Buller Coalfield only. My excuse for this limitation is due to—first, the fact that Westport coal holds the premier position, both as regards quality of coal and extent of trade; and, secondly, I express no opinion on coal country with which I am not sufficiently acquainted. I need hardly remind you that Westport coal has grown so much in public favour that now the demand is greater than production, and to such an extent that there is a risk of loss of trade if prompt measures are not taken to open up other mines, as well as extensive operations of those in existence. As a fact, this retrograde process is now in operation, notwithstanding the Wesport Company are doing their best to meet demands, and expect, as I am courteously informed by Mr. Joachim, the general manager of the company, to increase their output this year by 70,000 tons, bringing their output for the year to 450,000 tons, an increase that we can all hope will be realised; and, if so, will certainly be creditable to the company, but still an increase that is hardly likely to bring complete relief to consumers. I may here say that if the Westport Company's figures are realised it is probable that with a supply from Mokihinui the year's output from the Buller Coalfield will approach 500,000 tons—figures that seem large, but are far short of requirements, and altogether opposed to realisation of the long-looked-for foreign trade. In my statement to the Coal Committee of October, 1899, I said, "It would be very interesting for the public to know how far the one company now mining coal in Westport—there is another now—is prepared to meet public requirements for local consumption, as also their ability to meet any probable demand for foreign trade without risk of the price being raised in the colony or public inconvenience by reason of delay in delivery." I cannot do better than repeat this inquiry with the object of emphasizing the position: Should foreign trade of any extent be attempted? In the term "foreign trade" I exclude the wants of the British navy, which are likely to increase. Indeed, if facilities are given by proper harbour accommodation and the supplying of coal of undoubted quality, there is fair reason to think that so large a quantity of coal would be taken by the Admiralty that it would be worth while the colony offering the British Government the exclusive right to a coal area—providing they worked it—to insure their wants being met. By this means complaints of quality, dangerous and damaging alike to the navy and the fair name of the colony, would be averted.

There is great danger of the public sleeping in ignorance of the position of coal-supply as bearing upon other industries, particularly where required as a motive-power for manufacturing purposes; and I would suggest that steps be taken, say, by the Mines Department to have statistics prepared giving estimates of production for a year in advance as well as for actual production for a closing year, for it must be remembered that no mine is free from misfortune which, if happening seriously, may dislocate trade to such an extent that authoritative statements would be useful as to fair expectations of output. Of the Buller Coalfield not one-half has been geologically surveyed, and it is understood, on the authority of a well-known coal expert, Mr. Denniston, of Dunedin, that the most valuable portion of the field lies in the Onikaka Valley, also known as "Macley's District"; and I ask this conference to use its best influence to urge the Government to have a similar survey made as was done by Mr. Herbert Cox for the Denniston-Millerton sections of the field. This, I am convinced, is necessary as a preliminary to the opening-up of further coal areas, and so relieve possible congestion of the coal trade.

Another very important item bearing on coal is the question of railway-haulage. Efforts have from time to time been made to get the Government either to reduce the rate from Mokihinui or make a uniform charge—or, in other words, adopt the zone system for the Westport-Mokihinui line; but so far without success. The question is at last recognised by the Westport Harbour Board as important, they having passed a resolution asking the Government to reduce the rate. What is wanted is that all mines in the field should be put on equal footing. At present the difference of rates between the Westport Company and those working at Mokihinui is so great as to give the former company the advantage of 1s. 2d. and 1s. 3d. per ton as from Waimangaroa, and 8d. and 9d. per ton from Granity; this difference is really a serious hindrance in fair competition, and practically goes a long way to create the danger of monopoly. The profit of the line is the revenue of the Board, and accounts are distinct as from the general accounts for the lines of the colony, and a trial of the zone system could fairly be made without risk of a sudden change of policy affecting the whole system of revenue.

That my paper may not be too long I will now pass on to the subject of defence of the Port of Westport. Gentlemen of the conference will, no doubt, have read the report of the Joint Defence Secret Committee, and the subsequent discussion in the Council and the House upon this important subject on the introduction of the report and the Defence Bill. The report distinctly recommends the fortification of the Westport Coalfields, and in support quotes the opinion of His Excellency the Admiral commanding the naval station in which the colony is situated. Yet, notwithstanding the recommendation and opinion, the result of parliamentary discussion tends to undervalue the importance of fortifications generally—I mean of the larger ports of the colony, as well as that of the principal coal port. This undervaluing is further evidenced by the Defence Act Amendment Act passed last session, which totally ignores all reference to fortifications of harbours.

Bringing myself directly to the subject of defence of Westport Coalfields, the importance of this, I feel, must commend itself to this conference. Nation-making is now proceeding at such a rate that it will be suicidal not to give prompt and close attention to the protection of our coalfields and supplies for naval as well as for steam and motive-power for industrial purposes. The element of cost is prominent in the reasons why this important work should not be undertaken. Surely this very shortsighted view will not be countenanced. The colony has asserted itself as of importance, and is advancing to one of magnitude. Are we going to risk losing our position by neglect of preparedness for war as the safeguard to peace? What is going to become of our mercantile marine without security and freedom of anxiety as to supply of coal? It is argued that for the navy supplies of coal can be stored at Auckland; true to some extent, but far safer to look to the security of the first source of coal than rely too much on intermediate stations for supplies. I would ask that this conference take such steps that may seem fit in urging on the Government the importance of giving effect to the recommendations of the Defence Committee in the matter of fortifying the principal harbours, including that of Westport, of the colony.

Then, finally, in connection with the Westport Coalfields, the subject of communication must not be lost sight of. At present the district is isolated so far as railway communication is concerned; it is a matter of colonial importance that the best harbour of the West Coast should be communicated with the general railway system of the Island. I would ask that the question be not regarded as a local one; the geographical position of the harbour is such in its relation to Australia that in time it is fair to assume that, with a completed harbour for large tonnage, it will become a first port of call for vessels from parts of Australia. Apart from this, the question of defence of Westport again comes in, for by perfect railway connection, should occasion arise, the forces can be speedily moved if required.

Briefly, the points I desire to bring under the notice of the conference are: (1.) The necessity of further opening of the Buller Coalfield and adjustment of haulage-rates. (2.) The necessity of the Port of Westport being fortified and connected with the railways of the South Island.

Mr. Bayfeild concluded by moving, "That this conference recommends to the Government, for favourable consideration, the advisability of taking steps for an extended geological survey of the Buller Coalfield, consideration of adjustment of railway-haulage on the Westport–Mokihinui line, defence of the Port of Westport, and connection of that district with the general railway system of the South Island." Mr. Booth seconded the motion, which was carried.

EXHIBIT 4.

ON THE PROSPECT OF FINDING COAL UNDER THE COASTAL PLAIN WEST OF MOUNT ROCHFORD AND DENNISTON PLATEAU.

By ALEX. MCKAY, Government Geologist.

THE Wellington seam exposed on the south bank of the Waimangaroa River strikes south 20° W. and dips W.N.W. at an angle of about 40°. It is underlain by shales and sandstones, ending in a moderately fine-grained breccia. This closes the sequence downwards, the next underlying rock being granite. The coal is exposed as a seam of considerable thickness, much crushed and tender at the outcrop, and is overlain by alternating strata of dark shales and sandstone having the strike and dip already mentioned. Following the section of strata westward, or as exposed along the railway-line, it is seen that the dip is not lessened, and that before the railway-station, 430 yards distant from the outcrop, is reached a very considerable thickness of overlying strata has been passed, and that at the brick-kiln, further in the same direction, the dip is even higher than at the coal outcrop; allowing for the difference of direction as compared with the strike of the coal, it may be shown that something like 1,000 ft. of strata has already been passed. Between the brick-kiln and the schoolhouse the section-line followed turns more to the westward, and the rocks are the mudstones and the sandy marls that form the higher part of the coal-bearing sequence. Dips are rarely to be determined over this part of the section, but where the new road to Denniston begins to rise along the lower slopes of the spur range rocks of a sandy nature are exposed, striking south-east, and dipping south-west at an angle of 25°. This change of strike conforming with the change in direction of the section-line, and the distance being equal to that from the brick-kiln to the coal outcrop at the Wellington Mine, it follows that, despite the less angle of dip, some 500 ft. or 600 ft. of strata has to be added to that already noted. The angle of dip being considered, and there being no evidence of the reversal of the same, it thus follows that anywhere between the schoolhouse and the Waimangaroa Railway-station the only known seam of coal—the Wellington seam—cannot be reached at a moderate or reasonable depth. I am therefore compelled to discourage any attempt to do so.

Theoretically, it may be fairly concluded that the low grounds of the coastal plain from the Waimangaroa to the Buller River constitute an area over which coal-measures are present, underlying Recent and Miocene deposits. This is shown by what appears in the Cape Farewell section, and that between Cranes Cliff and the mouth of the Ngakawau, over and above the detailed evidence here given; but, except where exposed at high angles along the eastern border of this depressed area, the coal connot be reached by ordinary means, nor without considerable cost.

EXHIBIT 5.

Mr. W. H. HARGREAVES to the Hon. the MINISTER OF MINES, Wellington.

SIR,— Searl's Hotel, Wellington, 27th September, 1899.

Referring to the several interviews with yourself and the Premier, and in compliance with your request, I now beg to submit, as briefly as possible, the position of the Westport-Cardiff Company's mine, and suggestions for keeping the district open.

You will probably remember that towards the close of last year we were compelled to open up a new mine, called the "Bridge area," in order to keep our trade going, and that we had to abandon the whole of our original workings owing to heavy faults cutting off the coal. Almost immediately after opening the Bridge section the same difficulties were encountered, culminating last week in all the coal faces turning soft, and the supply of hard coal completely failing. Under these circumstances, we were compelled to cease work, as our storage is full of soft coal, for which we cannot find a market, and to continue its production would involve us in a loss of £80 to £100 per week, supposing we could sell the soft coal.

Our position is now, briefly, this: viz., All our capital is gone, and the chief asset consists of the plant, material, and work available for further operations, should funds be forthcoming for this purpose. There is a portion of our lease, called the "Cave district," which has been surveyed and favourably reported upon by our engineer as likely to provide about fifteen years' work, at the rate of about 70,000 tons per annum. The suggestion made by the Premier of the pound-for-pound subsidy to open up this Cave area is the only feasible plan whereby the district can be kept open, and if you are prepared to provide this subsidy to the extent of, say, £6,000, the estimated cost of the work being £12,000, we, on our part, are prepared to try and raise the other moiety of £6,000 for the purpose of developing this area, so as to continue operations on the same lines as heretofore. It must, however, be understood that I cannot advise this expenditure being made unless my company is relieved from all past liability for royalties and deficiency, in addition to a concession of 6d. per ton royalty on all coal won up to 50,000 tons each year, and an allowance of 8d. per ton on all unscreened and small coal haulage. My reasons for those suggestions are already in evidence given before the Coal Committee, and are also well known to you, and need not be repeated here.

The work of opening up the Cave area will occupy about eighteen months, and, pending the opening, it is possible that, if some substantial assistance were offered us to further develop the Bridge area, in hopes of striking hard coal, the men would be kept employed, our trade preserved, the district kept open, and revenue be derived by that section of the railway. I do not think I need further enlarge upon our position, but would respectfully direct your attention to the evidence I have referred to. As the matter is urgent, I have decided not to return to Christchurch to-day, as I intended, but to submit this letter for your consideration, in the hope of receiving your early reply.

I have, &c.,

The Hon. the Minister of Mines, Wellington. W. H. HARGREAVES.

EXHIBIT 6.

Mr. G. H. BROOME to Mr. W. H. HARGREAVES.

DEAR SIR,— Mokihinui, 20th February, 1899.

Enclosed please find tracing of our Bridge section workings extended to date, also tracing of our whole area to 10-chain scale, showing proposed tramway route, also approximate estimate of cost of development of the Cave Creek area.

Bridge Section.—I am pleased to state that since your visit conditions have improved in the Bridge section. The main heading and Cascade heading are both in good coal; we are also extending the surface tramway to the south, and in a few days' time I hope to have one or two more faces working in this direction. If the present promises are borne out, next week we should be equal to a daily output of 200 tons of hard coal, and thenceforth we should be able to gradually increase up to, say, 300 tons in a few months' time; but I fear to speak too confidently, as conditions rapidly change and unforeseen difficulties, in the shape of "rolls," "faults," and "wants," are frequently occurring. The proposed extensions are shown in red, and if conditions permit of my plans being carried out the terminal wheel for the self-acting rope will be moved from A to B, when the whole of the coal will be hung on the rope at the latter point, thus concentrating and cheapening the haulage and cutting off the surface tramway, jigs, and headings on the line C D E.

Cave Creek Area.—As I have before pointed out, we have no large area of coal in the Bridge section, and the troubles we have so far encountered have still further reduced this area. It thus becomes imperative to at once consider the question of further development. This question I fully discussed with Mr. Denniston during his visit, giving him all the information I had at my disposal, and he on his part gave me the advantage of his general knowledge of the whole field. He condemned the Patten's Creek area as broken and disturbed country, and my own observations in that direction tend to confirm his opinion. As to the probability of coal below the flat, our present bore, which is now 200 ft. deep and not yet through the marls, proves that if the coal exists it will be at a considerable depth, and could only be won by sinking. After carefully going through all the facts, Mr. Denniston arrived, with myself, at the conclusion that the Cave Creek was our only promising area, and that the prospects here were sufficiently encouraging to warrant the necessary outlay for development. You will, of course, have his written report on this point. As to method of development, after fully discussing the matter, we mutually agreed that a tramway branching from our present tramway at point A, and running in a straight line to our southern boundary,

would, if practicable, be the best line for working the whole of our field. We also agreed that it would be most economical and desirable to take the rope right through to Grant's face, also to at once proceed to bridge the creek, which would not be difficult at that point, and to proceed with our heading on the opposite side. This mode of attack would open up the whole of our field. We could immediately start a large number of faces and make our output practically what we liked. It will be noticed on reference to the plan that the dip in the Cave area is in a south-south-east direction, almost coinciding with the line of the proposed tramway. Thus it will be necessary to start driving in the coal at Grant's outcrop to avoid dip work. The coal will be tapped at the other extremity by a rock tunnel through the big upthrow fault and "want" shown on plan, starting at point C. This tunnel would probably be about 10 chains in length, but this can be little more than a guess until the tramway is properly located. In my estimate I have allowed for 15 chains of rock-tunnelling, this is meant to include the "want" I expect to find between Grant's face and the Cave area. After the tramway is located I should recommend boring on the proposed line at, say, D and E to prove the continuity of the seam and the dip. The line would probably take about one month to locate, and cost for labour of line-cutting, &c., about £20. The boring would probably occupy about six weeks and cost about £80. I have included these items in my estimate. The estimate given is approximate only, but I think it is in all cases sufficient; but it will not be safe to reckon on a less amount than that stated by Mr. Denniston—viz., £10,000. Are we justified in spending this amount? Everything considered, I think we are, provided the proposed bores are satisfactory. You will get Mr. Denniston's views upon the matter. The surface indications are favourable; the overlying country is unbroken and gently sloping. Most of the outcrops indicate good hard coal, averaging 13 ft. in thickness, whilst the bores (omitting bore No. 6) give an average thickness of 13 ft. 7 in. of good coal. The area to the east of Chasm Creek—*i.e.*, the Cave area proper—should contain 100 acres of coal. At a thickness of 13 ft. the theoretical yield would be 1,400,000 tons. Supposing the actual yield to be 50 per cent. of this: 1,400,000 ÷ 2 = 700,000 tons, which would maintain a vend of 70,000 tons for ten years. I am unable to speak with any degree of certainty as to the area to the west of the creek, as we have not tested it inland from the creek by boring; but I think we might rely upon getting, say, half as much on the other side—say, 350,000 tons (in all 1,050,000—*i.e.*, fifteen years' work at 70,000 tons per annum). The proposed coal heading from Grant's face back to the stone tunnel from point C would effectively open up and prove that portion of the field, but the cost would be too great for prospecting purposes only, and the time occupied in driving too long. We must thus risk a little in deciding to proceed with the work, for our past experiences prove that surface indications may be misleading, and, as "the proof of the pudding is in the eating," so the proof of our field is in the actual working. If the tunnel were driven full width for a double road, about 5,000 tons of coal should be obtained, and if a convenient place could be found for stacking this would almost pay for the driving. I propose driving a single heading only, and ventilating by means of a small fan driven by water-power, the air-current being conveyed to the face by means of air-troughs of sheet-iron. My estimate for driving includes ventilation by this method. As to time the work would take, I have already stated the preliminary work of location and boring would occupy ten weeks, and, say, other two weeks elapsed before we got the work started—*i.e.*, three months. Working three shifts, I estimate the 42 chains of coal heading and 5 chains of rock-tunnelling would take eighteen months to drive. All other works could be proceeding simultaneously with this, and could be completed by the same time. To provide for contingencies, it would be wise to take the time at two years.

In conclusion, I would again urge upon the directors the necessity of immediate action in connection with this proposed extension. We are now relying solely upon the Bridge section for our supplies, and even should this come up to our expectations it would only give us time to properly open out the Cave area; but should our area be curtailed, as it it has already been to some extent (see *ante*), then our supplies would be altogether cut off until the Cave area were developed.

Yours, &c.,

GEO. H. BROOME,
Managing Engineer.

W. H. Hargreaves, Esq., Managing Director.

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