



MINUTES OF PROCEEDINGS.

12TH MARCH, 1891.

MR. A. D. NELSON, PRESIDENT, in the Chair.

THE following candidates were balloted for and duly elected:—

MEMBERS:

JAMES ORMISTON CALLENDER.

GEORGE DOUGLAS HAMILTON.

FRANCIS AUGUSTUS FRANKLIN.

COMMUNICATIONS FROM THE COUNCIL.—The President announced that Mr. W. E. H. Nicolle had resigned his position as Secretary owing to pressure of business rendering him unable to devote the necessary time to carry out his duties, and that the Council had appointed Mr. H. E. Dickinson to the Secretaryship; also, that Mr. Nicolle had been elected to fill the seat on the Council vacated by Mr. Dickinson.

VOLUME V. OF PROCEEDINGS.—The President stated that Volume V. of the Proceedings would be ready for issue at the next Monthly Meeting, and took the opportunity of complimenting Mr. H. V. Ahrbecker (the Editor) on the successful result of his labour.

INAUGURAL ADDRESS.—The President then proceeded to read his Annual Address, in which he thanked the members for the confidence they had again testified in re-electing him for the third consecutive year, which he assured the meeting he would endeavour to justify by doing all that lay in his power to advance the usefulness and the best interests of the Asso-

ciation. He dealt at length with many topics of interest to the profession. Having touched on the liberal provision for Technical Education by the Government now approaching completion, and to which in its earlier stages so much had been done by members of the Association, he added that he considered steps should be taken to make technical education compulsory. He alluded to the want of really competent and reliable metallurgists as mine managers, as suggesting a wide field for men of talent and application with the prospect of substantial recognition of true merit, and considered that the Government should conduct examinations and grant certificates of competency. He quoted statistics of the Broken Hill Proprietary Mine, and exhibited a model of the timbering, which is on a system entirely unique and highly ingenious. The proposal to manufacture iron and steel in the Illawarra district was noticed, and without being very sanguine of its success he trusted it might be brought to an accomplished fact, when it would prove an inestimable boon to the community. Having referred to the recent differences between labour and capital, and expressed a hope that the Commission now sitting might succeed in formulating a satisfactory solution of the difficulty, he concluded his address by a brief review of the proceedings of the last session and an earnest appeal to members to forward the interests of the Association by reading papers, taking part in the discussion, and regular attendance. Messrs. W. D. Cruickshank and G. Ashcroft having made a few remarks on the cost of coal with reference to iron manufacture, Mr. W. Shellshear then moved, seconded by Mr. H. Broderick, a cordial vote of thanks, eulogising the active part Mr. Nelson took in promoting the welfare of the Association. The vote of thanks was carried by acclamation. The President briefly returned thanks, and expatiated on the difficulty of finding matter on account of the paucity of large works at present in progress in the colony.

The meeting then terminated.

9TH APRIL, 1891.

MR. A. D. NELSON, PRESIDENT, in the Chair.

The following candidates were balloted for and duly elected :—

MEMBERS :

THOMAS DICKINSON

A. E. CUTLER

GEORGE FRASER.

STUDENT :

T. GOODALL.

PAPER.—A paper was then read by Mr. W. D. Cruickshank on "The Injector: How and Why it Works." In the course of his remarks the author made appropriate reference to the early days of the Association when the subject had been introduced by a question. The principles which govern the operation of this ingenious appliance were dwelt on with considerable skill, and brief but pertinent reference was made to the several theories, the comprehension of which were necessary to the intelligible grasp of the subject. Mr. W. Shellshear moved, seconded by Mr. S. Briggs, a cordial vote of thanks, which was accorded by acclamation. Mr. G. Fisher moved, seconded by Mr. J. B. Henson, "That, as the hour was late and no doubt many members wished to speak on the subject, the discussion be adjourned," which motion was carried unanimously. The meeting then terminated.

14TH MAY, 1891.

MR. A. D. NELSON, PRESIDENT, in the Chair.

The following candidates were balloted for and duly elected :—

MEMBERS :

OSWALD McMASTER

COLIN ROSS.

GIBSON'S VALVE MOTION.—The President stated that he had endeavoured to bring before the members some models of improvements in slide valve sink motion made by Mr. Gibson, which he was sure would prove very interesting. It was found impracticable to bring them to our rooms, but an invitation would be shortly issued to members to make an inspection and hear an explanation by the inventor, which opportunity he trusted they would avail themselves of.

DISCUSSION ON MR. W. D. CRUICKSHANK'S PAPER.—The President then called on Mr. G. Fischer, the mover of the adjournment, to open the discussion, which he did with a few appropriate remarks. Mr. H. E. Dickinson having spoken to the subject, Professor Selman (a visitor) was invited to speak. In doing so he touched on the proposed extension of the system of technical education under the auspices of the Government, and also referred to the theory of the injector, giving the formula on which the efflux of steam was calculated. Mr. Owen Blacket also spoke on the subject of technical education. Messrs. J. I. Haycroft, T. W. Seaver and H. Heatley (a visitor) also made some remarks on the theory of the injector. Mr. W. D. Cruickshank, in replying to the remarks on his paper, took the opportunity to explain, by means of a drawing, the apparatus used by Mr. Brownlee to ascertain the effect of outside pressure in resisting the outflow of steam, by means of which the fact was established that no increase of efflux took place on the reduction of the opposing pressure below 58 per cent. of the internal pressure. He replied to the various criticisms, which he held did not in any way impair the correctness of the principles he had enunciated as explanatory of the working of the injector. He was pleased to hear that the scheme sketched out by Professor Selman and Mr. Blacket held out hopes of a much more extended field of usefulness for technical education. The meeting then terminated.

A meeting was called by usual circular for Thursday evening, June 11th, but as several important public events

occurred on the same evening and the weather was most inclement, it was resolved, on the motion of Mr. G. Fischer, seconded by Mr. Auldjo, "That this meeting stand adjourned until Thursday, the 18th inst."

A meeting was called in the ordinary course for Thursday evening, June 18th. There being but a small number of members present, it was resolved to adjourn until Thursday, the 9th of July.

9TH JULY, 1891.

MR A. D. NELSON, PRESIDENT, in the Chair.

DEATH OF MR. H. E. DICKINSON.—The President stated that his first duty was a most unpleasant one, as he had to announce the death of our late Secretary, Mr. H. E. Dickinson, caused by an accident at the Australia Hotel, where he was filling the position of Chief Engineer to the Company. The President reviewed the circumstances, and spoke in the highest possible terms of Mr. Dickinson. After which Mr. W. E. H. Nicolle moved, seconded by Mr. H. Howe, "That as a mark of respect to our late Secretary this meeting do now adjourn." The motion was agreed to.

LETTER OF CONDOLENCE TO MRS. DICKINSON.—Mr. G. Fischer moved, seconded by Mr. L. Auldjo, "That a letter of condolence be written from this Association to Mrs. Dickinson, expressing our deep sympathy with her in her bereavement." Carried unanimously. The President intimated that if this matter were left in his hands he would carry out our wishes.

PAPER by Mr. T. W. Seaver on "The Engineering Aspect of Local Self Government." It was decided that this paper be taken as read, and that the discussion take place at a special meeting to be held on the 16th inst. The meeting then terminated.

A meeting was called in the usual manner for Thursday evening, the 16th of July, for the purpose of discussing Mr. T. W. Seaver's paper on "The Engineering Aspect of Local Self Government." There being but a small attendance of members, it was resolved to postpone this business until the General Monthly Meeting in August.

13TH AUGUST, 1891.

MR. A. D. NELSON, PRESIDENT, in the Chair.

The following candidates were balloted for and duly elected :—

MEMBERS:

A. M. HOWARTH

D. CODRINGTON SELMAN.

STUDENTS:

A. H. FRIEND

A. N. McNICOL.

PROPOSED EXHIBITION FOR 1892.—Mr. C. Van de Velde spoke in favour of holding an Electric Exhibition, and moved a resolution to that effect. Mr. J. S. Fitzmaurice did not consider that a purely Electric Exhibition would prove a success owing to the small amount of material obtainable, and moved the following amendment, "That an Engineering and Electric Exhibition be held." Mr. G. Fischer supported Mr. Fitzmaurice's remarks, and seconded the amendment, which on being put to the meeting was carried unanimously. The President suggested that the preliminary arrangements be left in the hands of the Council, which was agreed to.

ALTERATIONS TO RULES AND BY-LAWS.—The President stated that for some time past the Council had had under consideration the advisability of making certain alterations to the rules regarding the election of the Council and officers, the object being to compel members who wished to vote to select the