

THE ENGINEERING ASSOCIATION

OF

NEW SOUTH WALES.

Established 1870.

Incorporated 1884

SESSION 1903-4.

PART I.

MINUTES OF PROCEEDINGS.

ANNUAL GENERAL MEETING

8TH OCTOBER, 1903.

MR. J. L. C. RAE, PRESIDENT, in the Chair.

INTRODUCTION OF NEW MEMBERS.—MESSRS. R. Steel, Peter Connie, and J. B. Bawdon were welcomed by the President, and introduced.

The following candidates were balloted for and duly elected :—

MEMBER :

OSCAR GRANOWSKI, Engineer, 108 Pitt-street, Sydney

JAMES HENRY HODGE, Engineer, 110 Sussex-street,
Sydney

JAMES LAWSON, Engineer, 12 Shelly-street, Sydney

J. H. NORTHROP, Engineer, Circular Quay, Sydney

I. S. T. ZLOTKOWSKI, Engineer, 110 Sussex-street, Sydney

ASSOCIATE :

Mr. W. V. BUZACOTT, Engineer, 7 Market-street, Sydney.

ANNOUNCEMENT OF RESULT OF BALLOT FOR ELECTION OF COUNCIL AND OFFICERS FOR THE ENSUING SESSION.—The Scrutineers reported the result of the ballot for the election of officers and Council for the ensuing session as follows:—

PRESIDENT:

MR. J. L. C. RAE (*re-elected*).

VICE-PRESIDENTS:

MR. J. SCOULAR

MR. H. B. HOWE

HONORARY TREASURER:

MR. JOHN SANDS.

HONORARY SECRETARY AND EDITOR:

MR. HENRY V. AHRBECKER.

MEMBERS OF COUNCIL.

MESSRS A. E. CUTLER,	E. J. ERSKINE,
R. W. FINLAYSON,	W. H. GERMAN,
ROBERT GRANT,	HECTOR KIDD,
JAMES MACARTNEY,	JAMES SHIRRA,
RUSSELL SINCLAIR.	

The President returned thanks for his re-election, and referred briefly to matters concerning the welfare of the Association.

ANNUAL DINNER.—The President announced that the Council had decided that the Annual Dinner be held on Friday the 30th inst., at the A.B.C. Café. Tickets 10/6 each.

ANNUAL REPORT AND BALANCE SHEET.—This was laid on the table, and, on the motion of the President, seconded by Mr. Hector Kidd, was unanimously adopted.

PAPER BY MR. F. E. STOWE ON "EBULLITION, CIRCULATION AND EFFICIENCY OF STEAM BOILERS."—At the conclusion of the reading of this Paper it was resolved on the motion of Mr. Hector Kidd, seconded by Mr. R. S. Vincent, that a hearty vote of thanks be accorded the author for his paper, and that the discussion on same be adjourned.

The President having pointed out that this was the last meeting of the Session, and that it was desirable that papers read during the Session and discussions thereon, should be included in the proceedings of the Association for the year, it was moved by Mr. W. H. German, seconded by Mr. E. J. Erskine, that an extraordinary General Meeting of the members of the Association be held before the end of the year to discuss this paper, the date of such meeting to be fixed by the Council.

The meeting then terminated.

17TH DECEMBER, 1903.

MR. J. L. C. RAE, PRESIDENT, in the Chair.

INTRODUCTION OF NEW MEMBERS.—Messrs. J. Fairweather and D. Borthwick were welcomed by the President and introduced.

The following candidates were balloted for and duly elected :—

MEMBERS :

JOHN WILSON FELL, Engineer, 119 George-street, Sydney.

PETER PATERSON, Engineer, 176 Clarence-street, Sydney.

DISCUSSION* ON MR. F. E. STOWE'S PAPER ON "EBULLITION, CIRCULATION AND EFFICIENCY OF STEAM BOILERS."—The discussion was opened by Mr. James Shirra, followed by Messrs. J. Scoular, A. J. Arnot, J. W. Fell, J. Macartney, G. Boulton, and the President, who called upon Mr. Stowe to reply. Mr Stowe replied to the various points raised.

The meeting then terminated.

10TH MARCH, 1904.

MR. J. L. C. RAE (PRESIDENT) in the Chair.

INTRODUCTION OF NEW MEMBER.—Mr. J. W. Fell was welcomed by the President, and formally introduced.

* This discussion was published in Vol. XVIII.—ED.

BALLOT FOR NEW MEMBER.

The following candidate was ballotted for and duly elected.

MEMBER:

THOMAS J. GRANGER, Inspector of Factories, 48 Young-street, Sydney.

PRESIDENTIAL ADDRESS.—Mr. Rae then gave his Presidential Address, which proved to be of a highly instructive and interesting character. Having made reference to the progress of the Association during the past year, and the improved state of finances, he mentioned that the Council were endeavouring to arrange for a series of lectures on British engineering and other subjects by eminent writers in their various branches of the profession, and thought this was highly satisfactory, as the Association had always taken a keen interest in technical education. He also spoke of the disastrous loss to our pastoral industry through the drought of the past four years, and the recuperative power of the State; and, further, pointed out the absolute necessity of a system of irrigation, referring to the Assuan Dam on the River Nile and the system of irrigation in India, and what can be done in that direction. He said they had heard a great deal lately about the question of population, but with such enormous area and meagre population how could we expect much development in that direction. If the inland areas were more thickly populated, no doubt a greater attention would be paid to the question of irrigation. He also pointed out our difficulties of competing in other markets owing to the distance from the chief consuming centres and the present high rate of wages, and said nearly the whole of our manufacturing industries were in need of encouragement. He referred to the gold, copper, tin, and coal yields for the past year, and gave some very interesting figures in comparison with previous years, and said our general mining production was a very

satisfactory one. He explained the Greta and Maitland coal strata, making special mention of the marine fossils to be found. He then traced recent developments in the coal trade, and in referring to coal mining machinery said the coal cutting machine had come to stay. He also referred to the progress of several State works, and said Sydney might reasonably be proud of her tramway service, and the installation of steam turbines at the Power House at Ultimo would be specially interesting. In conclusion, he expressed the belief that this country had a great future.

Mr. F. E. Stowe, in proposing a vote of thanks, said they had much to thank Mr. Rae for in the past, and the address they had listened to gave them food for considerable thought. There was no doubt that to ensure the prosperity of the country it required population. It gave him extreme pleasure to propose a hearty vote of thanks to the President for the very able address they had had that night.

Mr. A. E. Lea, in seconding the vote of thanks, said he quite coincided with all that Mr. Stowe had said, and referred to the valuable services rendered to the Association by the President.

Mr. Rae, in his reply, said in his Presidential Address he had endeavoured to bring forward those subjects mostly of interest, and not only as President, but as a member, he would do all in his power to forward the interests of the Association.

The meeting then terminated.

14TH APRIL, 1904.

MR. J. SCOULAR, VICE-PRESIDENT, in the chair.

The following candidates were balloted for and duly elected :—

MEMBERS :

DERWENT W. JOHNSON, Engineer, 252 George-st., Sydney.

WILLIAM H. MEDCALF, Engineer, 82 Pitt-st., Sydney.

PAPER BY MR. E. J. CLARKSON, ON "NOTES ON IRRIGATION."

—At the conclusion of the paper the discussion was opened by Mr. Hector Kidd, followed by Mr. R. W. Finlayson, who moved the adjournment of the discussion until the next monthly meeting, coupled with a vote of thanks to Mr. Clarkson for his paper. Mr. Shirra seconded the adjournment.

The meeting then terminated.

12TH MAY, 1904.

MR. J. L. C. RAE, PRESIDENT, in the chair.

The following candidates were balloted for and duly elected:—

MEMBER :

GEORGE R. ROBERTSON, Engineer, Pastoral Finance Association, Limited, Kirribilli Point, North Sydney.

DISCUSSION ON MR. CLARKSON'S PAPER, "NOTES ON IRRIGATION."—The discussion was continued by Mr. R. W. Finlayson, followed by Messrs. James Shirra and W. H. German; and was replied to by Mr. Clarkson, who exhibited and explained a diagram showing the application of the "Nole" plough.

Afterwards Mr. W. H. German exhibited and explained a diagram illustrative of the work of the Helical Centrifugal Pump, as made by Messrs. Ruston, Proctor & Co. (England). The diagram, he pointed out, was issued by that firm.

TOPICAL DISCUSSION ON IRRIGATING AND PUMPING APPLIANCES.

—It was proposed by Mr. Vincent, and seconded by Mr. German, that this discussion be postponed, and that a hearty vote of thanks be accorded to Mr. Clarkson for his paper. The President made some remarks on the subject, and conveyed to Mr. Clarkson the thanks of the Association.

EXHIBITION OF THE "LUX INCANDESCENT LAMP," by Messrs. Burns, Philp & Co. A very interesting exhibition of this lamp was given by Messrs. Burns, Philp & Co. Mr. Brown,

who conducted the exhibit gave a highly instructive description of the light, and answered many questions put to him by members.

On the motion of Mr. German, seconded by Mr. Scoular, a hearty vote of thanks was accorded to Messrs. Burns, Philp & Co. and Mr. Brown, for the exhibit, which was carried by acclamation, the thanks of the association were conveyed by the President, and replied to by Mr. Brown.

The meeting then terminated.

9TH JUNE, 1904.

MR. J. L. C. RAE, PRESIDENT, in the chair.

INTRODUCTION OF NEW MEMBER.—Mr. W. H. Medcalf was formally welcomed and introduced by the President.

PAPER BY GUSTAVE EY ON "OIL ENGINES."—The discussion was opened by Mr. J. Macartney, who proposed an adjournment of the discussion until next meeting, which was seconded by Mr. J. Shirra, followed by Mr. W. H. German, who asked for some information from Mr. Ey, regarding the difference on the "Constant" mentioned in his paper, as between the four cycle and two cycle engines, followed by Mr. Russell Sinclair, who asked Mr. Ey for information regarding the weight per horse power of the motors he described.

The motion for adjournment having been duly put to members and carried unanimously, the meeting then terminated.

14TH JULY, 1904.

MR. J. L. C. RAE, PRESIDENT, in the Chair.

INTRODUCTION OF NEW MEMBERS.—Mr. George R. Robertson was formally welcomed and introduced by the President.

The following candidates were balloted for and duly elected :—

MEMBERS :

ALFRED WILLIAM PRICE, Engineer, 19 York-street, Sydney.

WALTER GEORGE WEST, Engineer, St. Peters, Sydney.

DISCUSSION ON MR. GUSTAVE EY'S PAPER ON "OIL ENGINES."

—The discussion was opened by Mr. James Macartney, followed by Messrs. James Shirra, J. W. Fell, A. Christie, J. Scoular and H. E. Ross. On the motion of Mr. R. Sinclair, seconded by Mr. James Macartney, it was decided to adjourn the further discussion on Mr. Ey's paper until the next monthly meeting.

EXHIBIT OF AN INDICATOR FOR OIL AND GAS ENGINES, by Mr. RUSSELL SINCLAIR. A very interesting exhibition of this Indicator was made by Mr. Sinclair, who gave a lucid description of the instrument.

The meeting then terminated.

11TH AUGUST 1904.

MR. J. L. C. RAE, PRESIDENT, in the Chair.

INTRODUCTION OF NEW MEMBER.—Mr. A. W. Price was formally welcomed and introduced by the President.

The following Candidates were balloted for and duly elected :—

MEMBERS :

GEORGE AUGUSTINE RODDA, Engineer, 163 Clarence Street, Sydney.

ROBERT BORLAND, Assistant Superintendent, Government Dockyard, Biloela.

ADJOURNED DISCUSSION ON MR. GUSTAVE EY'S PAPER ON "OIL ENGINES."—The discussion was opened by Mr. Russell Sinclair, followed by Messrs Low, P. Paterson, and the President.

Mr. Ey replied to the various points raised.

EXHIBIT OF A CREAM SEPARATOR BY MR. RUSSELL SINCLAIR.—A very interesting discription of this machine was made by

Mr. Sinclair who fully explained its parts and manipulation in detail, and afterwards put it through an actual working test.

On the motion of Mr. German, seconded by Mr. Hector Kidd, a very hearty vote of thanks was accorded to Mr. Sinclair.

The meeting then terminated.

8TH SEPTEMBER, 1904.

MR. J. L. C. RAE, PRESIDENT, in the chair.

The following candidate was balloted for and duly elected:—

MEMBER

ROBERT RUTHERFORD, Engineer in Charge at Central Wharf, Windmill-st., Miller's Point, Sydney.

APPOINTMENT OF SCRUTINEERS (Ballot for Officers and Council for next Session—1904-5).—It was proposed by Mr. Fitzmaurice, seconded by Mr. Fell, that Messrs. James Macartney and T. Brown be appointed.

Motion carried unanimously.

APPOINTMENT OF AUDITORS (to audit accounts for current session).—It was proposed by Mr. Diamond, seconded by Mr. Steel, that Messrs. H. J. Vale and R. R. King be appointed.

Motion carried unanimously.

PAPER.—“A BRIEF DESCRIPTION OF IRRIGATION PLANTS IN OPERATION ON A BUNDABERG SUGAR PLANTATION,” BY JAMES McGECHAN.—This paper was communicated by Mr. W. H. German, who added some remarks descriptive of the plantation referred to, and of the value of the scheme thereto. He then proposed a hearty vote of thanks to Mr. McGechan for the trouble he had taken in preparing the paper, and to Messrs Young Bros. (the owners of the plantation), for allowing the valuable data to be communicated, and suggested that any

discussion should resolve itself into written questions, so that Mr. McGechan might have an opportunity of replying. This was seconded by Mr. Diamond, and carried unanimously.

“REMARKS ON GRETA AND MAITLAND COAL SEAMS,” BY THE PRESIDENT. — The President then gave a rough sectional sketch and description of the probable theory of the denudation of coal between Maitland and Greta, to which he had referred in his Presidential Address, delivered on 10th March.

The meeting then terminated.
