

# THE ENGINEERING ASSOCIATION OF N. S. WALES

ESTABLISHED 1870.

INCORPORATED 1884.

SESSION 1916-1917

## PART I.

### MINUTES OF PROCEEDINGS

OF THE ANNUAL GENERAL MEETING, HELD AT THE  
ROYAL SOCIETY'S ROOMS, 5 ELIZABETH STREET, SYDNEY,  
ON THURSDAY, 12TH OCTOBER, 1916.

Present.—The President, Mr. J. W. Bragg, in the chair, and about 30 members.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of the previous meeting were read and confirmed.

Report for year.—The Hon. Secretary read the report of the Council for the year.

Accounts.—The Hon. Treasurer made a statement as to the financial position of the Association. It was resolved that the report and balance sheet be adopted.

Election of Officers and Council for Session 1916-17.—The President read the certificate of the scrutineers appointed to conduct the ballot:—

President

Mr. D. F. J. HARRICKS.

Vice-Presidents

Mr. A. F. SAUNDERS

Mr. J. G. McEWIN

Hon. Treasurer

Hon. Secretary & Editor

Mr. H. L. THOMPSON.

Mr. J. McNAMARA.

Councillors

Mr. G. A. JULIUS

Mr. W. REEKS

Mr. W. SINCLAIR

Mr. P. A. FILDES

Mr. A. J. DEBENHAM\*

Mr. J. VICARS

Mr. B. W. JONES

Mr. A. H. FRIEND

Prof. S. H. E. BARRACLOUGH

\*Resigned. Mr. A. W. Tournay-Hinde elected to Council.

Presidential Address.—The retiring President, Mr. J. W. Bragg, then read his address, and at the conclusion asked Mr. D. F. J. Harriks to occupy the President's chair.

Mr. Harricks proposed a vote of thanks to Mr. Bragg for his valuable address, the vote of thanks also to express the appreciation of members of the services Mr. Bragg had given to the Association. The motion was seconded by Mr. J. G. McEwin, and supported by Mr. A. W. Tournay-Hinde (who suggested that the address should be published and circulated as widely as possible), and was carried with acclamation.

Mr. Bragg acknowledged the vote of thanks.

Mr. Harricks, on behalf of the newly-elected Council, thanked the members for the confidence shown in electing them to their present positions.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

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Minutes of General Meeting, held at the Royal Society Rooms, 5 Elizabeth-street, Sydney, 8th March, 1917.

Present.—The President, Mr. D. F. J. Harricks, occupied the chair, and about 120 members and visitors were present.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of the Annual General Meeting were read and confirmed.

Ballot for New Members.—Members: W. B. Hipsley, Managing Director, Hipsley & Wardell, Ltd., Sydney; A. G. Little, Civil Engineer, Messrs. Lane & Peters, Burrinjuck; E. W. Marriott, Mechanical Engineer, C.S.R. Co., Ltd., Sydney; Duncan Gillies, Inspecting Engineer, C.S.R. Co., Ltd., Sydney; H. A. Mitchell, Chief Naval Engineering Draftsman, Commonwealth Naval Dockyard, Cockatoo Island; Wm. Fraser, Draftsman, C.S.R. Co., Ltd., Sydney; W. K. N. Price, Engineer, 68½ Pitt-street, Sydney; S. C. Jones, Engineer, Port Kembla Smelting Works. Associate Members: E. Wauhope, Engineering Draftsman, Tramway Dept., Sydney; R. Burnside, Engineer Supt., Port Jackson & Manly S.S. Co., Sydney; J. O. Lietks, Engineer, C.S.R. Co., Sydney. Associate: H. Adams, Manager, F. R. Perrot, Sydney. Student Members: W. W. Brown, W. Lund, W. H. Lush, R. Humbley, A. L. Merrett, A. McCorquodale.

The above having been duly nominated and approved by the Council, were balloted for and unanimously elected.

Presentation of Students' Prize.—The prize of £5 5s. for the best paper submitted from the Students' Section was awarded to Mr. E. S. Maclean for his paper on "The Preservation of Metals in Marine Work."

Paper.—The President called upon Mr. Russell Sinclair to read his paper, entitled "Some Notes and Observations Relative to Engineering in Great Britain during the War."

The discussion was opened by Mr. A. E. Cutler, who proposed a vote of thanks to Mr. Russell Sinclair for his interesting paper. Mr. F. Saunders seconded the motion, which was carried with acclamation.

Mr. Russell Sinclair acknowledged the vote of thanks, and replied to the several points raised.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting held at the Royal Society Rooms, 5 Elizabeth-street, Sydney, on Thursday, 12th April, 1917.

Present.—The President, Mr. D. F. J. Harricks, occupied the chair, and about 100 members and visitors were present.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of the previous meeting were read and confirmed.

Ballot for New Members.—Members: A. C. Heron, Surveyor, Lloyd's Register, 251 George-street, Sydney; Wm. Robertson, Surveyor to Lloyd's Register, 251 George-street, Sydney. Student Member: R. E. S. Shute.

The above having been duly nominated and approved by the Council, were balloted for and unanimously elected.

Paper.—The President called upon Mr. J. B. Smart to read his paper on "The Microscopy of Steel."

The discussion was opened by Mr. Poole, who proposed a hearty vote of thanks to Mr. Smart. He was followed by Mr. McEwin, who seconded the motion, which was carried with acclamation.

Mr. Smart, in acknowledging the vote of thanks, replied to the various points raised.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Royal Society Rooms, 5 Elizabeth-street, Sydney, on Thursday, 10th May, 1917.

Present.—The President, Mr. D. F. J. Harricks, occupied the chair, and about 60 members and visitors were present.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of the previous meeting were read and confirmed.

Ballot for New Members.—Member: Mr. J. J. King-Salter was elected a member of the Association.

Obituary.—The President announced the death of Mr. E. J. Erskine, and referred to the useful work done by Mr. Erskine, who had been a member of the Association for twenty-two years, and a past President.

Announcement.—The President notified members that Mr. J. W. Bragg had left Sydney on that day for England, and expressed the hope that he would return to Sydney, and continue to help in the work of the Association.

Paper.—The President called upon Mr. A. Snashall to read his paper on "The Transmission of Power by Gearing."

The discussion was opened by Mr. F. Saunders, who proposed a hearty vote of thanks to Mr. Snashall, followed by Mr. J. G. McEwin, who seconded the motion. The motion was carried with acclamation, and the meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Society's Rooms, 5 Elizabeth-street, Sydney, 14th June, 1917.

Present.—The President, Mr. D. F. J. Harricks, in the chair, and about 40 members.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of previous meeting were read and confirmed.

Ballot for New Members.—Members: A. Snashall, Electrical and Mechanical Engineer, Pendennis Chambers, George-street, Sydney; Godfrey Stevenson, Consulting Mechanical Engineer, Challis House, Martin Place, Sydney; H. A. McRoberts, Chief Engineer, Harwood Mill,

Harwood, N.S.W. Associate Member: R. R. King, Jnr., Engineer, Mort's Dock and Engineering Co., Ltd., Balmain. Student: J. R. Hunter, Draftsman, Messrs. Waugh and Josephson, Sydney.

The above having been duly nominated and approved by the Council, were balloted for and unanimously elected.

Paper.—The President called upon Mr. H. A. Mitchell to read his paper, "Notes on Estimating and Costs of Architectural and Engineering Works."

The discussion was opened by Mr. J. G. McEwin, who proposed a hearty vote of thanks to Mr. Mitchell. He was followed by Mr. Hart, who seconded the motion, which was carried with acclamation.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

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Minutes of General Meeting, held at the Society's Rooms, 5 Elizabeth-street, Sydney, 12th July, 1917.

Present.—Mr. D. F. J. Harricks, in the chair, and about 200 members and visitors.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of previous meeting were read and confirmed.

Announcements.—The President referred to the departure of Mr. F. Saunders, Vice-President of the Association, for England, and expressed the hope that the Association would again have his valuable assistance on his return.

The President announced that three more members of the Students' Section had enlisted for active service, namely, R. Humbley, A. McCorquodale, and R. E. S. Shute.

The President stated that excellent reports had been received of work being done by Messrs. R. Grant and W. H. Grieve, members of the Association, who are engaged in munition work in England.

Ballot for New Members.—Members: J. H. Blundell, Asst. Engineering Manager, Commonwealth Naval Dockyard, Cockatoo Island; H. Leahy, Mechanical Engineer, Metropolitan Railway Construction Branch, N.S.W. Railways. Student: Leslie Voss.

Paper.—The President called upon Mr. J. G. McEwin to read his paper on “Concrete Shipbuilding.”

The discussion was opened by Mr. Walter Reeks, who proposed a hearty vote of thanks to Mr. McEwin. Mr. Hart followed, and seconded the motion, which was carried by acclamation.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Society's Rooms, 5 Elizabeth-street, Sydney, 13th September, 1917.

Present.—Mr. D. F. J. Harricks, in the chair, and about 45 members.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of previous meeting were read and confirmed.

Announcements.—Members on Active Service: The President referred to the fact that military honors had been gained by Lieut.-Col. A. C. Fewtrell, who had received the D.S.O., Captain J. L. Wright, and Captain A. N. Sinclair, upon both of whom the Military Medal had been conferred.

The President announced that the meeting set down for the 9th August had been postponed on account of the unsettled state of traffic owing to the strike.

Ballot for New Members.—Members: F. Oakden, General Manager, N.S.W. Cement, Lime and Coal Company, Hunter-street, Sydney; Wm. Corin, Chief Electrical Engineer, Public Works Dept., Sydney; R. Bethune, Chief Engineer, Sydney Paper Mills, Botany. Associate Member: W. B. F. Joy, Mechanical Engineer, Equitable Building, George-street, Sydney. Student Members: A. M. Brown, J. C. Buckley.

The above having been duly nominated and approved by the Council, were balloted for and unanimously elected.

Paper.—The President called upon Mr. Hector Kidd to read his paper, entitled “Notes on an Electrically Driven Hydraulic Pumping Plant.”

This paper was followed by a paper on “Some Suggestions for Improving the Efficiency of Fuel Economisers” by Mr. Henry Shaw.

A discussion on both papers then took place, which was opened by Mr. Tournay-Hinde, who proposed a hearty vote of thanks to Mr. Hector Kidd and Mr. H. Shaw. He was followed by Mr. J. G. McEwin, who seconded the motion, which was carried with acclamation.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

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Minutes of Special General Meeting, held at the Society's Rooms, 5 Elizabeth-street, Sydney, 8th November, 1917.

Present.—The President, Mr. D. F. J. Harricks, in the chair, and about 70 members and visitors.

Notice.—The notice convening the meeting was taken as read.

Minutes.—The minutes of previous meeting were read and confirmed.

Ballot for New Members.—Associate Members: J. A. L. Cotton, Chief Engineer, Australian Chilling and Freezing Co., Ltd., Aberdeen, N.S.W.; F. H. Holloway, Mechanical Engineer, Lever Bros., Ltd., Balmain; A. N. Campbell, Chief Engineer, Messrs. Tooth & Co., Sydney.

The above having been duly nominated and approved by the Council, were balloted for and unanimously elected.

Announcements.—The President said it was with the deepest regret he had to announce the death of Capt. A. N. Sinclair and Lieut. R. S. Lloyd whilst on active service.

Paper.—The President called on Mr. J. J. King-Salter to read his paper on the "Balancing of Rotating Masses, with Special Reference to Screw Propellers."

The discussion was opened by Mr. J. G. McEwin, who proposed a hearty vote of thanks to Mr. King-Salter. He was followed by Mr. Tournay-Hinde, who seconded the motion, which was carried with acclamation.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.