# THE ENGINEERING ASSOCIATION OF N.S. WALES

ESTABLISHED 1870.

INCORPORATED 1884.

SESSION 1917-1918.

#### PART I.

#### MINUTES OF PROCEEDINGS

OF THE ANNUAL GENERAL MEETING, HELD AT THE ROYAL SOCIETY'S ROOMS, 5 ELIZABETH STREET, SYDNEY, ON THURSDAY, 11TH OCTOBER, 1917.

Present.—The President, Mr. D. F. J. Harricks (Chairman), and about sixty members.

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

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

Annual Report and Balance Sheet.—On the motion of the President, seconded by Mr. McEwin, it was resolved that the report and balance-sheet presented be adopted.

Election of Officers and Council for 1917-18.—The President read the certificate of the Scrutineers appointed to conduct the ballot, and the members appointed, being as follows:—President, Mr. D. F. J. Harricks; Vice-Presidents, Messrs. Jas. Vicars, J. G. McEwin; Hon. Treasurer, Mr. H. L. Thompson; Hon. Secretary and Editor, Mr. Jas. McNamara; Council, Messrs. W. Sinclair, P. A. Fildes, A. W. Tournay-Hinde, P. B. Hamilton, W. E. Adams, Wm. Poole, Jas. Smith (resigned Jan. 3rd, 1918, Mr. H. A. Bremner appointed to the Council), A. J. Hart, J. G. Lancaster.

Voluntary Subscriptions.—The Hon. Treasurer proposed that a voluntary subscription from members of 10/6 and of 5/3 from Students be requested to cover the loss to the Association's revenue owing to the remission of subscriptions of Members on active service.

Seconded by Mr. Julius, and carried.

Presidential Address.—The President then read his address, and a hearty vote of thanks, proposed by Mr. McEwin, and seconded by Mr. Julius, was carried with acelamation.

The meeting then terminated.

## (Signed) D. F. J. HARRICKS.

Minutes of the General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on Thursday, 14th March, 1918.

President.—The President, Mr. D. F. J. Harricks (Chairman), and about 75 members and visitors.

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: E. E. Lucy, Chief Mech. Engineer, N.S.W. Railways, Eveleigh; C. A. Reed, Civil Engineer, James Hardie & Co., Ltd., Sydney; F. W. Price, Chief Engineer, C.S.R. Co., Ltd., Lautoka, Fiji; E. R. Cambridge, Engineering Draftsman, Railway Construction Branch, Sydney; R. A. Anderson, Consulting Engineer, 105 Pitt-street, Sydney, W. F. Burrow, Civil Engineer, Public Works Dept., Sydney; J. A. Woodward, Engineering Draftsman, Public Works Dept., Sydney. Associate Members: J. Fielder, Boiler Inspector, Queensland Insurance Co., Ltd., Sydney; J. Duncan, Boiler Inspector, Queensland Insurance Co., Ltd., Sydney; E. E. Lancaster, Engineering Draftsman, Public Works Dept., Sydney; G. W. Dalby, Mech. Engineer, Australian Gaslight Co., Mortlake; T. R. Horton, Chief Engineer, Grace Bros., Sydney; A. C. Brown, Engineering Draftsman, Chief Electrical Engineer's Office, Sydney. Student Members: F. Honey, H. G. Ross, A. L. McCredie.

Amalgamation of Engineering Societies.—The President reported that a conference had been held in Melbourne on the 12th February, 1918, and outlined the resolutions adopted at that meeting. He also stated that at the last meeting of the Council the two members chosen for the Advisory Council were the President and senior Vice-President. This was approved by the meeting. xlvii.

Paper.—The President called on Mr. Morrison to read the paper on "The Permeability of Concrete to Water" (by Mr. B. J. Smart, B.Sc., and Mr. A. Morrison).

A discussion on the paper followed, and a hearty vote of thanks to the authors, proposed by Mr. A. J. Hart, and seconded by Mr. F. Oakden, was carried.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on April 11th, 1918.

Present.—The President, Mr. D. F. C. Harricks (Chairman), and about fifty members.

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

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

Welcome to Lieut-Col. Fewtrell.—A hearty welcome was extended to Lieut.-Col Fewtrell, who had returned to Australia on furlough. Lieut.-Col. Fewtrell addressed the meeting, and gave an interesting description of the work of the Railway Unit behind the lines. A hearty vote of thanks was carried at the conclusion of his remarks.

Paper.—The President called on Mr. Tournay-Hinde to read his paper, "Some Notes of Experiments in the Transmission of Heat from Non-Luminous Flames through Thin Water-cooled Plates."

The discussion was opened by Mr. J. G. McEwin, who proposed a hearty vote of thanks to Mr. Tournay-Hinde. This was seconded by Mr. Wm. Sinclair, and carried with acelamation.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on 9th May, 1918.

Present.—The President, Mr. D. F. C. Harricks (Chairman), and about sixty members. Minutes.—The minutes of the previous meeting were read and confirmed.

Amalgamation of Engineering Societies.—The President said that this scheme had received the greatest possible encouragement, every State in the Commonwealth having sent delegates to the Provisional Council. The sending of delegates from distant States to the first conference in Melbourne and to the Provisional Council meeting in Sydney had entailed considerable expense to the Associations concerned.

Mr. Vicars moved that, in order to further the interests of engineering in Australia, a grant of £50 be made from the interest on the P. N. Russell bequest towards defraying the cost of delegation from distant States to the meetings of the Provisional Council, this amount to be in addition to the general expenses of the Association in connection with amalgamation, which were to be met from the same source.

The motion was seconded by Mr. Wm. Poole, and car-• ried unanimously.

Ballot for New Members.—Eng. Commander H. T. Canning, R.N., and Mr. H. J. P. Stiles were elected Members of the Association.

The President called on Mr. E. W. Marriott to read his paper on "Cooling of Condensing Water by Towers and Spraying."

The discussion was opened by Mr. Wm. Sinclair, who proposed a hearty vote of thanks to Mr. Marriott. Mr. Ferrier followed, and seconded the motion, which was carried with acclamation.

(Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on 13th June, 1918.

Present.—The President, Mr. D. F. J. Harricks (Chairman), and about fifty members and visitors.

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.—The following Members were elected:—Mr. A. E. Cornwell, Manager, Naval Wireless Workshops, Randwick, Member; Mr. T. G. Bennet, Inspector, Engineering Branch. Dept. of Labour and Industry, Sydney, Associate Member; Mr. E. Elliott as Student Member.

Repatriation.—Mr. Fildes moved that the following resolution, which was passed at the meeting of the Provisional Council of the proposed Institution of Engineers of Australia on the 16th May last, be adopted:—"That the members of the Engineering Association of New South Wales agree to place their services at the disposal of the Commonwealth Government for the purpose of forming Hon. Advisory Committees in connection with National Organisation arising out of the war."

Mr. Russell Sinclair suggested that an addition be made to the motion to the effect that if the Government did not take advantage of this offer, steps should be taken to urge them to do so. The motion was then put to the meeting with this addition, and was carried unanimously.

The President then called on Mr. Walter Reeks to read the first section of a paper on "Small Coastal Steamers" (by Mr. Reeks and Mr. Wm. Sinclair). The second section was read by Mr. Russell Sinclair.

A hearty vote of thanks, proposed by Mr. Shirra, and seconded by Mr. Payne, was carried with acclamation.

The meeting then terminated.

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(Signed) D. F. J. HARRICKS.

Present.—Mr. D. F. J. Harricks (Chairman), and about 130 members and visitors.

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

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

Minutes of the General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on 11th July, 1918.

Ballot for New Members.—The following applicants were elected to membership:—H. E. Ross, Consulting Engineer, Equitable Building, George-street, Sydney; R. H. Barr, Mech. Engineer, 2 Martin Place, Sydney; H. N. Reid, Supt. Engineer, Tooth & Co., Sydney; James Hamilton, Works Manager, Sydney Steel Co., Ltd., Sydney, as Members, and N. Jones as Student Member.

The President then called on Mr. W. F. Burrow to read his paper on "Bridge Construction in New South Wales."

The discussion was opened by Mr. J. J. C. Bradfield, who, in connection with his remarks, produced some very interesting lantern slides.

Mr. Vicars proposed a vote of thanks to Mr. Burrow and Mr. Bradfield, which was seconded by Mr. Poole, and carried with acclamation.

## (Signed) D. F. J. HARRICKS.

Minutes of the General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on August 8th, 1918.

Present.—The President, Mr. D. F. J. Harricks (Chairman), and about seventy members and visitors.

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

Obituary.—The President announced the death of Mr. W. H. German, a past President of the Association, and referred to the loss sustained by the Association in his death. The death of Mr. D. Chalmers was also announced, and the President referred to the high esteem in which Mr. Chalmers had been held by the members of the Association.

Ballot for New Members.—Mr. W. R. Swan, Supt. Naval Civil Engineer, Naval Works Depot, Customs House, Sydney, was elected a member of the Association.

The President announced that Mr. A. S. Plowman, Associate Member, had written to the Council, suggesting that a Branch of the Association be formed at Broken Hill, and stated that the matter is being considered by Council. The President stated that the Association is much indebted to Mr. Plowman for the interest he has shown in the welfare of the Association in making this suggestion. Amalgamation.—The President stated that the draft Constitution for the proposed Institution of Engineers of Australia had been issued to the Councils of the various Associations for their consideration.

The President then called on Mr. Vicars to read his paper on "Modern Road Pavements."

A vote of thanks to Mr. Vicars was proposed by Mr. Poole, and seconded by Mr. McEwin, and carried with acclamation.

The meeting then terminated.

## (Signed) D. F. J. HARRICKS.

Minutes of General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on the 12th September, 1918.

Present.—The President, Mr. D. F. J. Harricks (Chairman), and about fifty members and visitors.

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.—Mr. J. L. Fry, Engineering Draftsman, Sydney Harbour Trust, was elected an Associate Member.

Appointment of Scrutineers.—It was proposed by Mr. McEwin, and seconded by Mr. Fildes, that Messrs. R. J. Burn and R. Clayton be appointed scrutineers in connection with the ballot for the election of the Council for 1918-19 session.—Carried.

Appointment of Auditors.—It was proposed by Mr. Tournay-Hinde, and seconded by Mr. Walter Reeks, that Mr. C. E. Foxall be appointed Auditor and Mr. G. W. F. Findlay Hon. Auditor for the Session ending 30th Sept.— Carried.

Special General Meeting for November.—The President announced that Mr. Russell Sinclair would deliver a lecture before the Association on a date to be arranged later, and that it had been suggested that a Special Meeting should be held in November for this purpose.

Amalgamation of Engineering Associations.—The President announced that the various Associations concerned in this movement had now submitted recommendations in <sup>38</sup> connection with the draft Constitution, which had been forwarded for their consideration, and these were to be placed before the Executive Committee of the Provisional Council at the forthcoming meeting.

Paper.—The President called on Mr. H. H. Swain to read his paper, "A Method of Calibrating a Sharp-edged Orifice used for Determining the Flow of Air."

Mr. Tournay-Hinde opened the discussion, and proposed a vote of thanks to Mr. Swain. Mr. Poole seconded the motion, which was carried with acclamation.

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(Signed) D. F. J. HARRICKS.

Minutes of Special General Meeting, held at the Royal Society's House, 5 Elizabeth-street, Sydney, on November 14th, 1918.

Present.—The President, Mr. D. F. J. Harricks (Chairman), and about 100 members and visitors, including a number of ladies.

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

Ballot for New Members.—Mr. E. M. Dixon, Mech. Engineer, Public Works Dept., Sydney, was elected a Member of the Association; Mr. F. N. M. Nance, Engineering Draftsman, an Associate Member; and Mr. W. Macauley and Mr. Tucker Student Members.

Election of Hon. Librarian.—The President announced that Mr. Hector Orams had been appointed Hon. Librarian for the 1918-19 Session.

Paper.—The President then called on Mr. Russell Sinclair to deliver his lecture on "The Development of Women's Work during Wartime in England."

A hearty vote of thanks was accorded Mr. Sinclair at the conclusion of his lecture.

The meeting then terminated.

(Signed) D. F. J. HARRICKS.