

ENGINEERING ASSOCIATION

of New South Wales

Annual Report of Council and Balance Sheet

FOR THE

Year Ending 30th September, 1917

Your Council beg to present to you the Forty-Seventh Annual Report for the year ending 30th September, 1917, in which will be found a resume of the work carried out during the year.

The following gentlemen were elected members of the several grades of the Association during the Session, viz. :—
Members—W. B. Hipsley, A. G. Little, E. W. Marriott, Duncan Gillies, H. A. Mitchell, Wm. Fraser, W. K. N. Price, S. C. Jones, A. C. Heron, Wm. Robertson, J. J. King-Salter, A. Snashall, G. Stevenson, H. A. McRoberts, J. H. Blundell, H. Leahy, F. Oakden, Wm. Corin, R. Bethune.

Associate Members—E. Wauhope, R. Burnside, J. O. Lietke, R. R. King, jun., W. B. F. Joy.

Associate—H. Adams.

Student Members—W. W. Brown, W. Lund, W. H. Lush, A. L. Merrett, R. Humbley, A. McCorquodale, R. E. S. Shute, J. R. Hunter, L. Voss, J. C. Buckley, A. M. Brown.

The following Associate Members were elected full members :—Mr. H. J. Bartlett, Mr. C. G. Calman, Mr. A. R. Williams.

The following Graduates as Associate Members :—Mr. W. J. Marr, Mr. G. A. Tailby.

With regard to a number of members of the graduate and student grades, the Council has had to postpone its decision, principally because of the incomplete information available, and which is largely the result of absence of the members concerned on active service. This matter is still under consideration.

The following gentlemen have resigned from membership during the Session:—

Mr. A. Christie (member), Mr. J. Fairweather (member), Mr. C. C. Dudley (member).

The names of the following have been removed from the list of members in terms of Section V., No. 5, of the Rules and By-laws of the Association, viz.:—Mr. G. Bohler (member), Mr. W. W. Turner (member), Mr. J. Hendry (member), Mr. J. Johnston (member), Mr. G. D. Moffatt (member).

With deep regret we have to announce that death has claimed three of our members during this Session, those whose loss we deplore being: Mr. E. J. Erskine, member and Past-President, Session 1909-10; Mr. W. E. Pike, Graduate, late Lieut. in R.F.A.; Mr. R. M. Robinson, Student, late A.I.F.

The sympathy of the Association has been conveyed to the relatives of the deceased members, and we wish to place on record the services rendered to the Association by our late Past-President, Mr. Edward J. Erskine, who during his term of office worked hard in our interests.

The names of the late Lieutenant W. E. Pike, R.F.A., and Private R. M. Robinson, A.I.F., will be found on the Roll of Honor included in this report.

MEMBERSHIP.

It is with very great satisfaction that we have to announce that 36 new names have been added to the list of membership. See appended tabulated statement showing the changes that have taken place since 1916 Session:—

	Hon. M.	M.	A.M.	A.	G.	S.	Totals.	
Totals at 30th Sept., 1916	1	156	11	4	12	48	...	232
Elected .. .. .	...	19	4	2	...	11	...	...
Total Additions, 1917	...	...	...	...	...	...	36	...
Deceased .. .. .	...	1	...	...	1	1	...	...
Resigned .. .. .	...	3	...	...	...	...	...	...
Erased .. .. .	...	5	...	...	...	...	...	...
Total Deductions, 1917...	...	9	...	...	1	1	11	...
Net Alterations, 1917 ..	...	+10	+4	+2	-1	+10	...	25
Totals at 30th Sept., 1917	1	166	15	6	11	58	..	257

This, notwithstanding the strenuous times through which we are passing, speaks for itself as to the regard in which the Association is held, while the Council would impress

upon members the desirability of still further adding to our membership in order that we may make our presence felt in the community as a scientific body to which it is an honour to belong. Again, as such a large percentage of our members are away actively engaged in the defence of the Empire, it is incumbent on those remaining to continue keeping interest in the affairs of the Association well to the fore. Your Council wish to mark their appreciation of the splendid response to the call for voluntary subscriptions asked for, which totalled £47, without which we would have been unable to carry on the affairs of the Association without incurring some curtailment of expenses in other directions which are necessary for its successful management.

A reference to the accompanying Revenue Account and Balance Sheet will give a clear indication as to the financial position at the end of the Session.

COUNCIL MEETINGS.

During the Session 12 ordinary Council meetings and four special meetings have been held, at which the attendances were as follows:—

	Council Meetings.	Special Meetings.
D. F. J. Harricks	12	4
J. W. Bragg (absent from State May, 1917)	5	—
F. Saunders (absent since June, 1917)	4	—
J. G. McEwin	10	3
J. McNamara	11	4
H. L. Thompson	11	4
W. Sinclair	8	4
G. A. Julius	8	4
J. Vicars	5	3
B. W. Jones (absent from Sydney for three months)	3	—
P. A. Fildes	8	3
A. H. Friend	11	—
A. J. Debenham (enlisted Feb., 1917)	2	1
W. Reeks	9	2
A. W. Tournay-Hinde (appointed 1.3.'17)	6	2

PAPERS AT GENERAL MEETINGS.

The papers read before the general meetings were well up to the standard of those submitted during the previous years, and it was gratifying to the authors concerned to note the interest and enthusiasm of the members present, and, as the discussions were entered into with more than the ordinary zest, your Council desires to take this opportunity of thanking those concerned.

We have no doubt that for the ensuing Session a splendid series will again be ready for presentation to the members. Following is a list of the papers presented and discussed:—

1916.—October 12th: Address by the President, Mr. J. W. Bragg.

1917.—March 9th: "Some Notes and Observations Relative to Engineering in Great Britain during the War," by Mr. Russell Sinclair.

1917.—April 12th: "The Microscopy of Steel," by Mr. J. B. Smart, C.Sc. (London), F.C.S.

May 10th: "Gearing," by Mr. A. Snashall.

June 14th: "Notes of Estimating and Costs of Architectural and Engineering Works," by Mr. H. A. Mitchell.

July 12th: "Concrete Shipbuilding," by Mr. J. G. McEwin.

Sept. 13th: "Some Notes on an Electrically Driven Hydraulic Pumping Plant," by Mr. Hector Kidd.
"Some Suggestions for Improving the Efficiency of Fuel Economisers," by Mr. H. Shaw.

Oct. 11th: The Presidential Address. (To be rendered.)

ROLL OF HONOUR.

The increasing number of our members who are actively engaged in Empire defence cannot meet with anything but our deepest admiration, whilst others have shown their willingness to help by offering their services in the many phases of munition making.

We publish herewith a list showing the names and ranks of members who have answered the call, and we regret that several have made the extreme sacrifice.

1. Brand, J. J. C., Eng. Lieut.
2. Burton, C. R., Sergeant
3. Baker, O. W.
4. Bayliss, T. M.

ROLL OF HONOUR Continued—

5. Bill, W. G. (died of illness).
6. Campbell, A. G.
7. Carruthers, J.
8. Cliff, R. C.
9. Cole, L. G.
10. Cleary, H. M.
11. Debenham, A. J.
12. Drinkwater, G. M., Lieut.
13. Dowling, B.
14. Dowling, D. R.
15. Donaldson, J. K. (killed in action)
16. Fewtrell, A. C., Lieut.-Col., D.S.O.
17. Ferguson, C.
18. Ferguson, F. J.
19. Fletcher, K.
20. Fry, R. H., Sergeant.
21. Galloway, R. F.
22. Hamilton, J., Capt.
23. Hammond, H.
24. Herbert, J. E.
25. Henderson, L. G., Lieut.
26. Holliday, H. A. S.
27. Holroyde, J. B., Eng. Lieut.
28. Humbley, R.
29. Huntley, C. N., Lieut. (killed in action)
30. Irons, R. G., Lieut. (killed in action)
31. James, T.
32. Lambert, H. R.
33. Lees, J. W.
34. Lloyd, R. S.
35. McAuliffe, S. J.
36. McClure, B. H.
37. McCorquodale, A.
38. Mawdesley, J. E.
39. Pauch, G.
40. Pickering, J. L., Sergeant
41. Pike, W. E., Lieut. (killed in action)
42. Roberts, H. A., Capt.
43. Robinson, R. M. (killed in action)
44. Robbins, S. T.
45. Sinclair, A., Lieut., Military Cross
46. Smith, A. P., Capt (killed in action)
47. Shepherd, A. S.
48. Smith, W. R. M., Eng., Lieut. R.N.
49. Smyth, J. C. Lieut.
50. Shute, R. E. S.
51. Tindale, H., Capt.
52. Tregarthen, G. N., Lieut.
53. Thomas, E. H.
54. Wright, W. R., Eng., Lieut.
55. Williams, J. A.
56. Withers, A. J.
57. Witten, T. A.
58. Wright, J. L., Capt., Military Cross
59. Witney, C. A., Corporal

MUNITION WORK.

Professor S. H. E. Barraclough
 Professor A. J. Gibson
 R. Grant
 W. H. Grieve
 W. H. Medcalf
 E. F. Campbell
 N. A. Essermann
 D. G. Poyitt
 H. C. J. Kidd

SPECIAL SUB-COMMITTEES.

Sub-Committees as follows were appointed during the Session to deal with the matters enumerated below:—

The President, the two Vice-Presidents, and Messrs. G. A. Julius, W. Poole, and A. W. Tournay-Hinde: "The Census of Industrial Problems."

Mr. Jas. Vicars as the Association's Representative before "The Parliamentary Joint Committee of Public Accounts."

The President, Mr. Jas. Vicars, and Mr. W. Poole, as Representatives on the deputation to the Premier re "Wheat Elevator Contracts."

The President and Mr. G. A. Julius as representatives upon a deputation from the Engineering Association of N.S.W. and the Electrical Association of Australia (N.S.W. Section) to the Public Service Board with regard to the exemption of members of these Associations from examinations for elevation to the higher grade of the Public Service.

Messrs. A. J. Hart, Jas. Vicars, W. Poole, and A. McCreddie, to consider and report upon the proposed "Concrete Regulations by the Sydney Municipal Council Advisory Board."

The Hon. Secretary, Mr. J. McNamara; and Messrs. A. Snashall and J. G. Lancaster, to consider and report upon the "Standard General Conditions of Electrical Contracts."

The number of important matters referred to the Association for assistance and criticism is, we consider, a matter for congratulation as evidence of the growing recognition by outside bodies of its influence, and your Council wishes to express its appreciation of the thorough and effective work done by the members of the various Sub-Committees.

LIBRARY REPORT.

The Library Committee held nine Special Meetings during the year.

The outstanding feature of the Session was the throwing open of the Library for reading and reference from 11 a.m. till 5 p.m. on week days and from 10 a.m. till noon on Saturdays. This was possible, owing to the appointment of an Assistant Secretary and Librarian, who is in attendance at the above hours. While this privilege has been of great value to some members, it has not been availed of to anything like the extent desired, and your Committee would ask for greater support from members of all grades during the coming Session.

The fact that there are already in our Library the Proceedings of some 40 Institutions and over 30 Technical Magazines and Periodicals, should surely be of sufficient inducement to members to make use of the Library.

It has been found very difficult under existing war conditions to arrange all the exchanges desirable, but your Committee were able to add the following during the Session:—

Cold Storage and Ice Association.
 Colliery Guardian.
 Huddersfield Engineering Society.
 Institution of Water Engineers.
 Iron and Steel Institute.
 Manchester Steam Users' Association.
 Midland Institute of Mining, Civil and Mechanical Engineers.

Thirty-four volumes of Proceedings and Periodicals were bound during the Session at a cost of £12 4s.

Special attention has been given to the Text-Book Section, to which 56 volumes have been added during the Session at a cost of £39 14s. 2d., making a total of 152 volumes in this section. The additions would have been greater but for the scarcity of suitable technical books available for selection. It should be mentioned here that the aim of the Committee has been to secure as far as possible standard works of reference on Engineering subjects. Special attention has been paid also to obtaining certain suitable books that would be particularly useful to our junior members.

The Association's stamp has been blocked on each Text-Book, and the whole section carefully indexed and catalogued.

Library privileges to the extent of reference only have been extended to the following local Societies:—

Australasian Institute of Mining Engineers.
 Electrical Association of N.S.W.
 Institute of Architects.
 Institute of Civil Engineers (local Section).
 Northern Engineering Institute of N.S.W.
 Royal Society of N.S.W.
 Society of Chemical Industry.
 Surveyors' Institute.
 Sydney University Engineering Society.
 Technical College Chemical Society;

and it is recommended that similar privileges be extended to visiting members of any Institution or Society with which this Association exchanges Proceedings.

The Library Committee would be pleased to receive gifts of technical books, periodicals, etc., to be preserved in the Library for reference, and would welcome recommendations as to books, etc., or suggestions for the improvement of the Library. Such recommendations or suggestions should be inserted in the "Recommendation Book" now provided.

The following donations were gratefully received during the Session from members and friends:—

- 11 Bound volumes of "The Engineer,"
- 12 Bound volumes of "Engineering,"
- 13 Unbound volumes of "Engineering,"
- 4 Bound volumes of "The Electrician,"
- 38 University of Illinois Bulletins.

The Committee have been without the valuable services of Mr. J. W. Bragg during the past six months, owing to his having obtained leave of absence from Council for the remainder of the Session.

Appended is a statement of the expenditure on account of the Library to date, from which it will be seen that there is a cash balance of £186 19s. 3d. There also follows a statement of receipts and expenditure for the Session, showing that a sum of £66 9s. 9d. was expended.

Signed—

D. F. J. HARRICKS.
 J. McNAMARA.
 H. PASQUILL.
 H. L. THOMPSON.

LIBRARY STATEMENT AT 30th SEPTEMBER, 1917.

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Expenses, 1914-15 ..	67	1	9				Transfer from General Fund	50	0	0		
„ 1915-16 ..	61	8	3							50	0	0
„ 1916-17 ..	66	9	9				Interest on P. N. Russell					
				194	19	9	Bequest—					
Depreciation, 1915-16 ..	18	15	6				1914-15	95	12	6		
„ 1916-17 ..	20	18	0				1915-16	135	0	0		
				39	13	6	1916-17	135	0	0		
Cash Balance at 30.9.'17 ..				186	19	3				365	12	6
							Cheque Refunded			6	0	0
				£421	12	6				421	12	6

LIBRARY ACCOUNT FOR YEAR ENDED 30th SEPTEMBER, 1917.

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
To Debits—							By Receipts—					
“The Engineer,” London							„ Interest on P. N. Russell					
—Back numbers ..	1	2	0				Bequest, Bank of N.					
Am. Soc. Civil Engineers—							Queensland — Fixed					
Back numbers ..	1	7	1				Deposit	67	10	0		
Inst. Elect. Engrs., London,							Com. of Australia—War					
Science Abstracts ..	1	10	6				Loan	67	10	0		
Geo. Short & Son—										135	0	0
Binding	8	3	0				„ Cheque Refunded			6	0	0
Chapman & Co.—Binding												
(unpaid)	4	5	6									
Geo. Short & Son—												
Blocking	3	12	0									
Dymock's Book Arcade												
—Text Books	39	14	2									
R. Watson—Alteration												
to Book Cases	5	1	6									
Sundry Expenses	1	14	0									
				66	9	9						
„ Depreciation				20	18	0						
„ Cash Balance				53	12	3						
				£141	0	0				£141	0	0

STUDENTS' SECTION.

We very much regret that the attendance at the meetings of this section is not all that it should be, and your Council takes this opportunity of impressing upon the younger members of the Association the need for a more active interest in the affairs pertaining to their section. The Committee have indeed worked very hard to keep the interest alive, but unless backed up by the personal attendance of the members, their efforts will be of no avail. The papers presented during the Session were worthy of better attention, and it is the sincere wish of the Council that every student should make an effort to be present on the evening set aside for the meetings of this section.

STUDENTS' PRIZE.

It was with great pleasure that the Committee formed to adjudicate on the papers for the 1915-16 Session awarded the prize of £5 5s. to Mr. E. S. Maclean for his paper on "The Preservation of Metals in Marine Work."

The papers read before the Students' Section during the 1916-17 Session were as follow:—

1916.—October 18th: "Steam Meters," by Mr. C. A. W. Devitt, B.E. Chairman, Mr. D. F. J. Harricks.

1917.—March 28th: "Some Notes on Machine Tools," Mr. I. V. Doust.

April 25th: "The Development of the Gas Turbine," by Mr. C. A. W. Devitt, B.E. Chairman, Mr. Tournay-Hinde.

May 23rd: "Ignition Systems for Internal Combustion Engines," by Mr. A. J. Coyle. Chairman: Mr. J. G. McEwin.

June 4th: "Some Notes on Oxy-Acetylene Welding," Mr. W. R. Morris. Chairman: Mr. Bremner.

July 25th: "Refrigeration," Mr. W. Sinclair. Chairman, Mr. D. F. J. Harricks.

Sept. 26th: "Gyroscopes," Mr. C. A. W. Devitt, B.E. Chairman: Mr. Tournay-Hinde.

REVENUE ACCOUNT, YEAR ENDED 30th SEPTEMBER, 1917.

	£	s.	d.		£	s.	d.	£	s.	d.
To Printing and Reporting Proceedings ..	148	11	9	By Entrance Fees	48	6	0			
„ Rent	90	0	0	„ Subscriptions	329	16	9			
„ Asst. Secretary's Salary	80	0	0	„ Voluntary Subscriptions	46	19	3			
„ Students' Prize	5	5	0					425	2	0
„ Stamps and Postages	25	6	2	„ Interest on Savings Bank						
„ General Printing	18	0	0	Deposits	2	7	3			
„ Stationery	5	14	5		2	5	0			
„ General Expenses	18	17	1					4	12	3
„ Hire of Lantern for General Meetings	5	0	0	„ Library Reserve A/c—						
„ Insurance	0	17	5	Provision for Library						
„ Depreciation, Furniture, Fixtures, and				depreciation				20	18	0
Fittings, 5 per cent.	6	0	0	„ Sale of Proceedings				1	10	0
„ Depreciation, Library, Drawings, Pho-										
tos etc., 5 per cent.	20	18	0							
„ Net surplus for year	27	12	5							
	£452	2	3					£452	2	3