

ENGINEERING ASSOCIATION of New South Wales.

Annual Report of Council and Balance Sheet

FOR THE
YEAR ENDING 30th SEPTEMBER, 1915.

Your Council beg to present to you the Forty-fifth Annual Report for the year ending 30th September, 1915, showing the progress and work of the Association for the year.

The following gentlemen were elected members of the Association during the Session:—

Members—Wm. Poole, J. Smyth, R. J. Burn.

Associate—F. J. Ludowici.

Students—A. J. Coyle, C. A. Witney, J. E. Herbert, A. W. Devitt.

Student to Member—C. R. Burton.

While the following resignations were accepted:—

Members—F. Hunter, Jas. Kidd, T. Irons, G. W. Twigden, Jas. Muir, R. E. Finley, H. Shaw, C. Spooner, C. H. Davis, R. Paterson, L. M. Roberts, Wm. Noakes, John Lawson, T. S. Martin, W. J. Lockhart, A. McCubbin, W. Edmonds.

Students—R. S. Moore, L. Borthwick, A. McNiven, W. L. Lamond, H. G. Henty, E. S. Rowe, N. C. Nagle.

Whilst the names of the following have been removed from the list of members, on terms of Section V., No. 5, of the Rules and By-Laws of the Association:—

Members—H. E. Spencer, H. H. B. Deane, D. Lawrence, A. Maclachlan, C. E. Marchant, A. Mayoh, C. H. Relph, J. B. Rumford, A. G. Ambrose, E. Bale, J. Edwards, H. Shipman.

Students—G. A. Bernays, E. S. Davidson, A. D. J. Forster, T. Langwill, and A. B. Davidson.

It is with extreme regret that your Council have to report that we have lost by death Messrs. Lawrence Hargrave, Gordon Marr, and C. N. R. Huntley.

The former gentleman was one of our early members, having joined in the year 1875. His work is well known to us all, and his papers on aeronautics and aero-dyna-

mics have been so well known that comment on their value here would be superfluous. We are indeed proud to have been associated with such a personality. In Mr. Gordon Marr, we also lose a very prominent figure in the Engineering community of Sydney. The memory of Lieutenant C. N. R. Huntley will be ever revered by our members, as he was the first on our roll to lay down his life for the Empire. The death of Mr. H. Perdriau, a member since 1873, we also sincerely regret.

Membership.—The total number of members of the several grades is now 239, as compared with 272 at the close of last Session. The falling off as shown should not be taken as an indication of retrogression, as this can be accounted for by the very critical period through which we are passing at the present juncture, and the determination of your Council to remove from the roll members who have failed to keep their obligations, and who, are therefore, a needless expense to the Association generally.

We therefore ask your co-operation in obtaining further active members to keep the Association in a flourishing condition.

During the year twelve meetings of the Council have been held, at which the attendance was as follows:—

Prof. S. H. E. Barraclough	Attended	7	meetings
Mr. J. W. Bragg	„	5	„
„ W. H. Grieve	„	7	„
„ D. F. J. Harricks	„	10	„
„ J. McNamara	„	10	„
„ A. F. Saunders	„	6	„
„ A. Stobo	„	10	„
Commander G. H. Bromwich	„	5	„
Mr. R. Sykes	„	6	„
„ H. L. Thompson	„	11	„
„ G. A. Julius	„	6	„
„ J. G. McEwin	„	9	„
„ J. Macartney	„	8	„
„ A. J. Hart	„	7	„
„ W. Reeks (ex officio member)	„	11	„

Owing to the pressure of other work, Mr. D. F. J. Harricks handed over the position of Honorary Secretary and Editor, and the Council elected Mr. J. McNamara to these positions, Mr. Harricks assuming the post of Honorary Treasurer to the Association.

PAPERS AT GENERAL MEETINGS.

Your Council desires to express their thanks to the various members who have contributed papers during the Session. As it is to the interest of all, that contributions under this heading are invited, any new development that may happen to come under the notice of members should be readily availed of by those interested, and if possible presented to the members in the form of a paper at one of the General Meetings. Your Council feel confident that there are many members who could present interesting data from time to time, and which would be of infinite value to all.

During the year eight General Meetings and two Special Meetings have been held.

At the General Meetings the following papers were presented and discussed:—

- 1914.—Oct. 8th: "The Development of Marine Engineering in the Sydney, Newcastle and Hunter River Service," by Mr. D. Chalmers.
- 1915.—March 11th: "Military Field Engineering," by the President (Professor S. H. E. Barraclough).
- April 15th: "Some Notes on Marine Propulsion in 1914," by Mr. D. F. J. Harricks.
- May 13th: "The Michell Thrust Bearings," by Mr. J. A. Taylor.
- June 10th: "Consideration in the design of Industrial Machine," by Mr. R. Sykes.
- July 7th: "Building Construction under Modern Acts," by Mr. Arthur Hart.
- Aug. 12th: "The Manufacture of Small Artillery Shells," by Mr. D. F. J. Harricks and R. Clayton.
- Sept. 9th: "Weights, Measures, and Balances," by Mr. J. W. Bragg.
- Oct. 21st: Address by the President, Professor S. H. E. Barraclough, M.M.E., and M.I. Mech. E., Assoc. M. Inst. C.E.

NEW GRADE OF MEMBERSHIP.

As it had been considered for some time past that some amendment was necessary in the Constitution of the Association for provision of a grade between Student-Associate, and full Member, it was proposed to amend the

By-Laws accordingly. Therefore at the General Meeting, held on 7th July, 1915, the following amendments (see new rules) were brought forward, and were ratified at the General Meeting held on August 12th, 1915.

LIBRARY REPORT.

During the year, seven Special Meetings of the Committee have been held. It was considered that the first thing that should be dealt with was the putting in order of the Transactions and Proceedings already in the Library, binding those which it was desirable should be retained permanently, and to provide proper housing accommodation for them. This work has been carried out at a cost of £67 1s. 9d. After doing this the Committee carefully considered the desirability of procuring by exchange, the transactions of other Associations than those already received, and in deciding upon those which it would appear desirable we should now obtain for our Library, we have been largely guided by the practice of the Institute of Mechanical Engineers, London. The additional Societies whose transactions are desired we are now in communication with, but have not yet received all the replies. After having dealt with that section of the Library containing Transactions and Proceedings, the Committee turned its attention to the other section, viz.,—text books and works of reference. The existing works of reference in the Library are of little value, so that we are practically establishing a new section, and we have prepared a list of books to act as the nucleus of this part of the Library.

With regard to the cataloguing of both the Transactions and the Works of Reference, the Committee has to advise that no complete catalogue has been in use hitherto, so that your Committee was free to adopt a new and up-to-date system, and in this connection we obtained the advice of the Public Librarian of New South Wales, who very willingly offered to recommend a simple system for our Library. Our catalogues are not yet complete, but we will shortly be able to definitely advise the Council of the system adopted, and as soon as the catalogues are complete and the nucleus of our reference works installed, we propose to issue a list of the transactions and books of reference to each Member of the Association, and also to recommend some means whereby better use can be made of them by the Members.

With regard to the suggestion by the Electrical Association for an amalgamation of our Libraries, your Committee strongly recommends that this matter be held in abeyance for the present, and especially until we have our own Library in proper order, but it might be well to mention that the Committee feels that some means of rendering our Library available to other kindred Associations should probably be adopted even if the amalgamation of the Libraries of any of them is considered undesirable.

Appended is a statement of the expenditure on account of the Library during the past year, and from which it will be seen that there is a balance of £78 10s. 9d. still available from this year's interest on the P. N. Russell bequest, whilst, we should also mention that although the cost of binding Transactions during the past year has been fairly heavy, this will not be so in future, when it will simply be a matter of binding single volumes as they come to hand. The expense in this connection for the past year has been largely in connection with the binding of volumes for which the money was not available in past years to enable the work to be properly carried out.

D. F. J. HARRICKS
H. PASQUILL
J. McNAMARA
H. L. THOMPSON
JAMES W. BRAGG.

STATEMENT OF LIBRARY EXPENDITURE.

Year Ended 30th September, 1915.

Library Reserve.

By Interest on P. N. Russell Bequest	£95 12 6
„ Donation of £50 from the General Fund of Association	50 0 0
	<hr/>
	£145 12 6

Library Improvements.

Watson's A/c. for Shelving	£7 9 9
W. E. Smith—Book Covers	1 8 0
Chapman's A/c. Binding Volumes	27 8 0
Ditto. ditto. ditto	30 16 9
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Balance—£78 10s. 9d.	£67 1 9

EXCURSION.

By the courtesy of the Manager, J. J. King Salter, Esq., the members of the Association were invited to inspect the works at the Cockatoo Island Naval Dockyard,

on the Saturday afternoon of September 25th. Members and friends, to the number of 120, availed themselves of the opportunity.

An enjoyable and instructive afternoon was spent, perhaps the chief item of interest to members being the method adopted for the launching of H.M.A.S. Brisbane, which vessel was then on the stocks. The consensus of opinion being that the "ways," as arranged, showed an amount of care and thought, which should ultimately result in the successful launching of the vessel. (This has since been carried out without a hitch).

The members also had an opportunity of inspecting the three new destroyers under construction, while the material on view in the various bays of the workshops gave a good insight as to the exacting nature of the work called for in the vessels of our navy.

After refreshments had been partaken (presided over by Mrs. J. J. King-Salter), the party returned to town.

STUDENT SECTION.

It is with feelings of regret that we have to report a large falling off in the attendance of students at their General Meetings, but since the majority of the active members of this Section are serving the Empire, as a perusal of the list attached to this report will show, your Council feels that the call of duty has been nobly responded to by our junior members, and feels compelled to express its admiration for their conduct.

Papers read before Students' Section, Session 1914-1915:—

1914.—Oct. 15th: "The Evolution of Gas Retort Setting," by Mr. S. J. McAuliffe.

"Some Notes on the Humphrey Pump," by Mr. E. F. Campbell.

1915.—March 24th: "The Life of James Nasmyth, Engineer," by Mr. E. S. Maclean.

April 28th: "A Unique Two-Stroke Oil Engine," by Mr. J. L. Wright.

"Perfect Conditions and Uses of the Twist Drill," by Mr. S. J. McAuliffe.

"The Ellis Automatic Boiler Feed Regulator," by Mr. E. S. Maclean.

May 26th: "Notes on Hydraulic Control Valves," by Mr. U. V. Doust.

"Some Notes on Elastic and Vulcanite Grinding Wheels," by Mr. J. W. Lees.

“Some Uses of the Smaller Commercial Types of Internal Combustion Engines,” by Mr. A. J. Coyle.

June 23rd: Question Evening.

July 28th: “The Distribution and Application of Hydraulic Power,” by Mr. I. V. Doust.

Aug. 25th: “Stress Distribution in Materials and Structures,” by Mr. N. A. Esserman.

Sep. 22nd: “The Manufacture of 18lb. Shrapnel Shells,” by Mr. J. W. Lees.

“Some Notes on the Hele-Shaw System of Power Transmission,” by Mr. E. S. Maclean.

MEMBERS ON ACTIVE SERVICE.

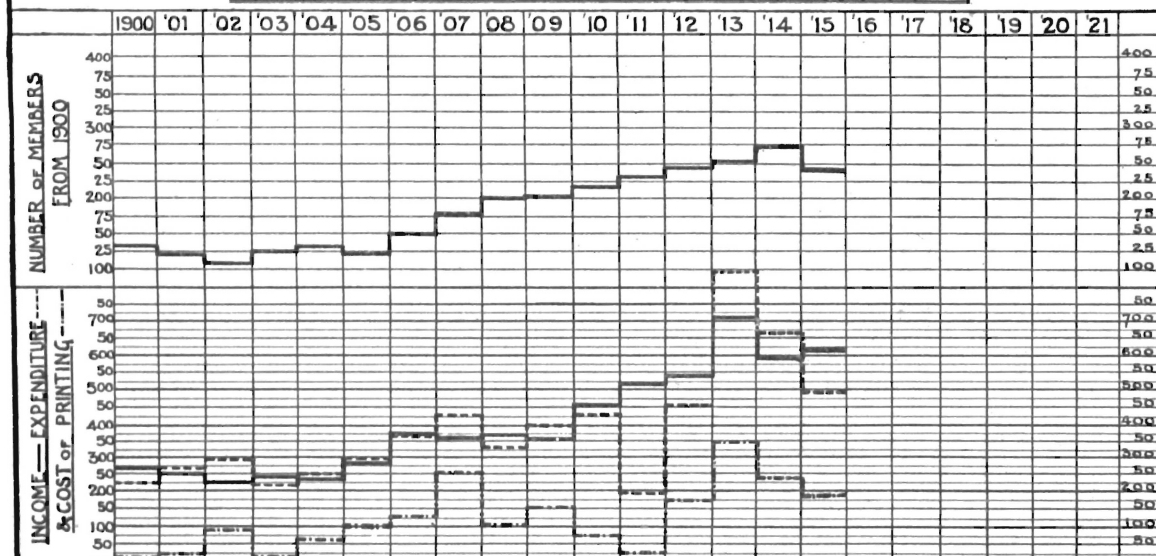
Your Council feels that the large number of members who have volunteered for active service justifies the publication of their names and rank, and for this purpose the following list has been prepared:—

1. BRAND, J. J. C., Eng. Lieut. Com. H.M.A.S. “Encounter.”
2. HOLLIDAY, H. A. S, Expert Marksman.
3. DRINKWATER, Sgt. G. M., Wounded.
4. HUNTLEY, Lieut. C. N., Killed.
5. BAYLIS, T. M., 2nd Signal Troop.
6. FRY, Sgt. R. H., 2nd Signal Troop.
7. CAMPBELL, A. G., Ammunition Park.
8. HAMILTON, Capt J., Ammunition Park.
9. COLE, Lance-Corporal L. G., Wounded.
10. DILLING, Sgt. J. G., invalided home from New Guinea, A.A.M.C.
11. DONALDSON, Lieut. J. K., killed.
12. DOWLING, B., Private.
13. DOWLING, D. R., Corporal.
14. FERGUSON, C., serving on Troopship.
15. LAMBERT, H. R., Private.
16. McCLURE, B. H., A.A.M.C.
17. SMITH, W. R. M., Eng. Lieut., H.M.S. “Biarritz.”
18. TREGARTHEN, G. N., Lieut. Royal Welsh Fusiliers.
19. WITHERS, A. J., Private.
20. WRIGHT, J. L., Private.
21. WITNEY, Corp. C.
22. WITTAN, T. A., serving on Troopship.
23. CAMPBELL, E. F., Private.
24. IRONS, R. G., Private.
25. GALLOWAY, R. F., Private.

ACCOUNTS OF RECEIPTS AND EXPENDITURE—YEAR ENDED 30th SEPTEMBER, 1915.

		£	s.	d.	£	s.	d.			£	s.	d.	£	s.	d.
1914—Oct. 1—									1915—Sept. 30—						
To	Balance, Bank N.S.W.	49	5	6					By	Printing and Reporting Pro-					
„	Balance, Savings Bank N.S.W.	62	7	11					ceedings				148	18	10
„	City Bank of Sydney, Fixed								„	Students' Prizes			7	7	0
	Deposit	3000	0	0					„	Rent of Rooms			90	0	0
„	Cash in Hand	1	8	1					„	Secretary's Salary			80	0	0
					3113	1	6		„	Stamps and Postages—					
1915—Sept. 30—									Salon	2	11	7			
To	Members' Subscriptions re-								General	21	2	4			
ceived	472	10	0									23	13	11
„	Members' Entrance Fees re-								„	General Printing			29	13	9
ceived	14	14	0					„	Stationery			7	10	11
					487	4	0		„	General Expenses			7	6	2
„	Sundries				0	17	7		„	Delivery of Volumes			1	15	8
„	City Bank of Sydney—								„	Hire of Lantern for General					
	Interest on Fixed Deposit ..				60	0	0		Meetings				7	0	0
	Withdrawal of Fixed De-								„	Students' Lantern			15	0	0
	posit				3000	0	0		„	Improvements to Library ..			67	1	9
„	Bank of Queensland—Interest								„	Insurance			0	17	5
	on Fixed Deposit				67	10	0		„	Bank of N. Queensland—					
„	Savings Bank of N.S.W.								Fixed Deposit				3000	0	0
	Deposit	136	3	2					„	Savings Bank N.S. Wales ..	136	3	2		
„	Govt. Savings Bank of								„	Govt. Savings Bank N.S.W.	13	16	10		
	N.S.W. Deposit	13	16	10									150	0	0
					150	0	0		„	Sundries			2	2	7
„	Savings Bank N.S.W. In-								„	Balance—					
terest	2	11	6					Bank N.S. Wales	21	17	2			
„	Govt. Savings Bank N.S.W.								Savings Bank N.S. Wales ..	201	2	7			
	Interest	0	0	9					Govt. Savings Bank N.S.W.	13	17	7			
									„	Bank N. Queensland, Fixed					
									Deposit	3000	0	0			
									„	Cash in Hand	6	0	0		
													3242	17	4
													£6881	5	4
					£6881	5	4						£6881	5	4

ENGINEERING ASSOCIATION OF N. S. W.



THE VARIATIONS IN THE EXPENDITURE ARE DUE TO THE IMPOSSIBILITY OF ALLOTTING THE COST OF PRINTING CORRECTLY FOR EACH YEAR. THIS IS DUE TO THE UNAVOIDABLE DELAYS THAT HAVE OCCURRED IN THE PUBLICATION OF THE VOLUMES.