



THE  
Institution of Engineers  
Australia

PERTH DIVISION

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Annual Report

for the

*Nineteenth Session*

1938

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GLEDDEN BUILDINGS,  
PERTH.







# The Institution of Engineers, Australia

(Incorporated by Royal Charter, 1938.)

## PERTH DIVISION.

### COMMITTEE REPORT FOR THE YEAR ENDING 31st DECEMBER, 1938.

The retiring Committee has pleasure in presenting its report for the 19th Session of the Perth Division of The Institution.

The Institution and the Division will both look back to 1938 as a year of considerable progress.

Firstly, the Division was honoured by the election of Mr. G. Drake-Brockman, M.I.E.Aust., as a Vice-President of The Institution during the Conference in Sydney. We congratulate him and express our appreciation of the action of Council on recognizing the Division and honouring one who has worked assiduously for The Institution.

Secondly, the quest for a Division Headquarters was realised by our occupation of the Seventh Floor of the Gledden Building in April last, when the new rooms were officially opened by Dr. J. S. Battye, Chancellor of the University of W.A., during the course of the Annual Meeting.

Thirdly, The Institution was granted a Royal Charter by His Majesty the King early in the year and formally accepted by The Institution in September, when the affairs of The Institution of Engineers, Australia, were wound up and its activities transferred to The Institution of Engineers, Australia, Incorporated by Royal Charter.

Fourthly, the Division was honoured with an official visit by the President of The Institution, the Hon. F. P. Kneeshaw, O.B.E., M.L.C., M.I.E.Aust., in company with the Secretary, Mr. E. S. Maclean, M.I.E.Aust.

The 18th Annual General Meeting was held in The Institution Rooms, Gledden Building, on 26th April, 1938, when the following members were declared elected as Officers and Committee for 1938:—

Chairman	.....	Mr. J. W. Young
Past-Chairman	.....	„ G. Drake-Brockman
Vice-Chairman	.....	„ W. A. McCullough
Vice-Chairman	.....	„ J. S. Foxall
Hon. Secretary	.....	„ E. H. Oldham
Hon. Treasurer	.....	„ A. G. Sloane
Asst. Hon. Secretary	.....	„ J. B. Jukes

Committee: Assoc. Prof. O. F. Blakey, Dr. A. T. Bowden,  
Messrs. J. Andrew, F. M. Kenworthy, E. W.  
C. Godfrey and S. J. Hood.

Attendances at Committee Meetings during the year were as follows:—

Andrew, J.	.....	8	Jukes, J. B.	.....	9
Blakey, O. F.	.....	8	Kenworthy, F. M.	.....	10
Bowden, A. T.	.....	6	McCullough, W. A.	.....	7
Drake-Brockman, G.	.....	6	Oldham, E. H.	.....	10
Foxall, J. S.	.....	4	Sloane, A. G.	.....	9
Godfrey, E. W. C.	.....	9	Young, J. W.	.....	10
Hood, S. J.	.....	4			



## MEMBERSHIP.

Membership at the 31st December, 1938:—

Members .....	27
Associate Members .....	163
Associates .....	1
Juniors .....	35
Students .....	48
	<hr/>
	274
	<hr/>

This is an increase of six over last year.

The following were elected during the year:—

<b>Associate Members:</b>	<b>Juniors:</b>	<b>Students:</b>
Agnew, R. G.	Bott, K. C.	Cook, R. W.
Brennan, T. F.	Evans, A. J.	Dimmitt, A. W. J.
Bril, A.	Stewart, N. H.	Donaldson, J.
Dent, A. L.	Wickham, R. T.	Harding, L. R.
Gregson, F.		Leahey, F. E.
Maguire, T. H.		Letch, L. A. C.
McKie, J.		Paterson, D. P.
		Pond, A. C.
		Saw, F. S.
		Scott, J. B.
		Sugden, D. B.

Grade Transfers during the year:—

<b>Assoc. Member to Member:</b>	<b>Junior to Assoc. Member:</b>	<b>Student to Junior:</b>
Cavanagh, R. J.	Blackwood, G. W.	Chippington, T. G.
Young, J. W.	Blown, W. B.	Howe, J. A.
	Ehlers, C. R.	McLaren, W. J. R.
<b>Student to Assoc. Member:</b>	Herbert, W. M.	
O'Donnell, F.	Hinton, H. H.	
	Knott, J. R.	
	Steere, E. K.	
	Tilley, G. H.	

Transfer from another Division:—

Campey, L. T. (A.M.)

Transfer to other Divisions:—

<b>Associate Members:</b>	<b>Juniors:</b>	<b>Students:</b>
Barr, F. R.	Bott, K. C.	Dimmitt, A. W. J.
Graham, W. T.	Edwards, R. D.	Donaldson, J.
Morris, A. R.		Hicks, A. H.
Nicholas, H. T.		Hogan, T. K.
		Marshall, W. A.

Resignations:—

Caddy, R. A.—Stud.  
Feldman, S. F.—Stud.  
Irvine, W. A.—A.M.  
Linklater, I. M.—Stud.  
Waldron, K. R.—Stud.

Death:—

McCabe, W. B.—M.



## THE YEAR'S WORK.

The following General Meetings were held during the year:—

The 18th Annual General Meeting was held on 26th April, when the new Division Headquarters were officially opened by Dr. J. S. Battye, Chancellor of the University of W.A., who also addressed the meeting.

The 135th General Meeting was held on 23rd May, when Mr. V. C. Munt, A.M.I.E.Aust., presented a paper entitled "Impressions in America."

On 27th June the 136th General Meeting was addressed by Mr. A. E. R. Stephenson, A.M.I.E.Aust., on "Bulk Handling."

The 137th General Meeting held on 25th July, took the form of a Popular Lecture to which kindred Institutions and visitors were invited, and Prof. A. D. Ross delivered a paper entitled "Giant Telescopes with particular reference to the 200" Telescope now under construction for the Mount Wilson Observatory."

"Sewerage Reticulation Practice in Perth Metropolitan Area" was the paper given by Mr. J. E. Parker, A.M.I.E.Aust., at the 138th General Meeting on 29th August.

The 139th General Meeting and the 1st meeting after the Institution had been incorporated by Royal Charter, was held on 26th September, when Mr. W. H. Taylor, M.I.E.Aust., delivered a paper entitled "The New 'B' Station of the W.A. Government Electricity Supply."

The 140th General Meeting was presented with a paper entitled "An Outline of Mining Practice in Western Australia," by Mr. E. E. Brisbane, A.M.I.E.Aust., on 24th October.

The attendance at General Meetings has been very satisfactory, the average number present being about fifty.

## FINANCE.

The Annual Balance Sheet, printed at the back of this report, is presented for your information.

## QUARTERS FOR PROFESSIONAL SOCIETIES.

As mentioned previously the "housing" of the Division in quarters in keeping with the status and dignity of The Institution has been achieved.

The Division has entered into a lease with the University of W.A. for ten years, and the following bodies have become our tenants:—

The Australian Chemical Institute.

The Royal Institute of Architects of W.A.

Institution of Surveyors, W.A.

The Australian Institute of Agricultural Science.

Standards Association of Australia.

Architects' Board of W.A.

The increased attendance and the general atmosphere at meetings indicates that the new accommodation is appreciated by members.



## **COUNCIL MEETINGS.**

It has always been the endeavour of the Committee to have representation at each Council Meeting.

In view of the special circumstances in connection with the Royal Charter a special effort was made, and one or more Councillors attended each Council Meeting as follows:—

Council Meeting in Sydney during Annual Conference—  
Assoc. Prof. O. F. Blakey and Messrs. G. Drake-Brockman and J. W. Young.

Council Meeting in August—Assoc. Prof. O. F. Blakey.

Council Meeting in September—Mr. J. Andrew substituted Mr. G. Drake-Brockman.

Councillors for the 1939 Session are:—Assoc. Prof. O. F. Blakey, Messrs. J. W. Young and W. A. McCullough.

## **LIBRARY.**

The Library is now suitably furnished and past numbers of various journals have been bound. It is proposed to continue binding these journals each year, the current copies being left on the shelves for members' use. Several modern text books were purchased, and it is proposed to add several of these each year.

## **ANNUAL DINNER.**

The Annual Dinner was again well patronised by members on Monday, 5th December. Some 75 members and visitors attended at the Savoy Hotel.

Amongst the guests were the Minister for Works, the Hon. H. Millington, the Minister for Labour, the Hon. A. R. G. Hawke, and representatives from kindred Institutions and the Press.

## **SERVICE TO MEMBERS.**

This subject is one that the Council is very keen to advance. In the past the Committee has considered the provision of suitable Headquarters as the most important service that could be rendered to Division members. Now other avenues will open up, and suggestions from members will be appreciated.

## **UNIVERSITY OF W.A.**

The co-operation of the Division was sought on two occasions by the University. Once when the question of the Gledden Scholarships were under consideration, when a sub-committee was asked to prepare a scheme for utilising the funds available for these scholarships.

Also when the curriculum of the Faculty of Engineering was under review, representatives of the Division were included on a committee formed by the Dean of the Faculty to submit a report to the University Senate.

## **PROFESSIONAL VIGILANCE COMMITTEE.**

A representative attended several meetings of the Committee formed among various Professional Societies to devise machinery that could operate to the benefit of Professional bodies under various circumstances that may arise in the future.



## **AIR RAID PRECAUTIONS COMMITTEE**

and

### **NATIONAL DEFENCE LEAGUE.**

The Institution's support and co-operation in forming an Air Raid Precautions Committee was sought by the Secretary to the Premier. This was readily given and the Committee undertook to form a sub-committee when requested.

A representative also attended a meeting of the National Defence League formed in connection with the recent recruiting campaign, and to deal with other matters of National Defence.

### **DONATION.**

Mr. M. J. Davies, M.I.E.Aust., a foundation member now retired and living in England, sent a donation of five guineas for the Committee to use as it thought fit. An electric clock with a suitably inscribed tablet was procured and placed on the wall of the Assembly Room.

### **VISIT OF INSPECTION.**

During the official visit of the President and Secretary, a visit of inspection to the new Power House was arranged, and on Tuesday, 8th November, about 40 members journeyed out to East Perth, where they were shown over the Power House by Mr. W. H. Taylor, M.I.E.Aust., and his staff. A very interesting afternoon was spent by all, and those not closely associated with electrical undertakings were given some idea of the magnitude of the plant.

### **WIRELESS TALKS.**

Continuing the practice of the last few years, Wireless Talks on engineering subjects by members of the Division have been given during the year from Station 6WF. The broadcasts given were as follows:—

"The Romance of the Locomotive"—Mr. F. Mills, A.M.I.E. Aust.

"Stormwaters"—Mr. F. M. Kenworthy, A.M.I.E.Aust.

"Some Aspects of Gas Supply in the Modern World"—Mr. F. C. Edmondson, M.I.E.Aust.

"Harbours"—Mr. N. J. Henry, A.M.I.E.Aust.

"Harbours"—Mr. N. J. Henry, A.M.I.E.Aust.

"Railway Washaways"—Mr. S. J. Hood, A.M.I.E.Aust.

"Sewerage in Modern Cities"—Mr. R. J. Cavanagh, M.I.E. Aust.

"Modern Municipal Engineering"—Mr. C. S. Paterson, A.M.I.E.Aust.

### **JUNIORS AND STUDENTS' SECTION.**

This section had a very successful year under the Chairmanship of Mr. P. G. Leyden. A number of meetings were held, details being given in a short report of their activities.

E. H. OLDHAM,

Hon. Secretary.



## JUNIORS AND STUDENTS' SECTION—ANNUAL REPORT, 1938.

The Management Committee has pleasure in presenting the Annual Report of the activities of the Section for the 1938 Session.

The 7th Annual General Meeting was held on 9th November, 1937, when the following officers were elected for the 1938 Session:—

Chairman	.....	Mr. P. G. Leyden
Vice-Chairman	.....	Mr. G. L. Cheffins
Hon. Secretary	.....	Mr. J. J. Edwards
Committee:	Messrs. H. T. Williams, J. C. Thomas and K. F. Hudson	

At this meeting Mr. H. H. Hinton read a paper entitled "Some features of Air Conditioning in Modern Buildings." Twenty members attended.

The 31st General Meeting was held in the Gledden Building in May, when a paper was read by the Chairman, Mr. P. G. Leyden, entitled "Telephone Distribution." Ten members attended.

The 32nd General Meeting was held in June when Mr. J. J. Edwards read a paper entitled "Municipal Engineering" to an attendance of seven members.

The 33rd General Meeting was held in July, when Mr. K. F. Hudson read a paper entitled "Rotary Printing Presses," to an attendance of nine members and eleven visitors.

The 34th General Meeting was held in August, when Mr. A. R. Hill read a paper entitled "Bituminous Emulsion" to an attendance of nine members.

"History of Architecture" was the paper delivered by Mr. F. S. Shaw at the 35th General Meeting held in September. Nine members attended.

Although the papers submitted during the year have been of a high standard, the attendances have been somewhat disappointing. This falling off in attendance can be attributed to a number of causes, the chief ones being (a) the transfer of regular attendants to Associate Membership, (b) the transfer of a large number of graduates of the University to the Eastern States.

A special appeal should be made in the next session to interest some of the younger students in the section.

A highly successful Smoke Social was held in the Engineering School Hall in November, which was attended by a number of senior members.

The thanks of the members are due to those senior members who have served on the Management Committee, their continued interest and helpful direction being greatly appreciated.

I have the honour to be,

J. J. EDWARDS,

Hon. Secretary, J. & S. Section.



## AUDITORS' REPORT.

26th January, 1939.

The Honorary Secretary,

The Institution of Engineers, Australia (Incorporated  
by Royal Charter), Perth Division,  
Perth.

Dear Sir,—

1. We have pleasure in reporting having completed the audit of the books and accounts of the Perth Division of The Institution of Engineers Australia (Incorporated by Royal Charter) for the period from 15th September 1938, to 31st December, 1938. We have already certified to and reported on the Revenue Account of the Perth Division of the Institution, for the period 1st January, 1938, to 14th September, 1938, and the Balance Sheet at the last-mentioned date. As The Institution became, when incorporated by Royal Charter on 14th September, 1938, a new legal entity, we append hereto a Revenue Account covering the period from the inception of the new Institution to the close of the calendar year. We understand it is desired, however, to place on record a Revenue Account for the whole of 1938 to facilitate comparison with preceding and succeeding years, and we therefore attach that account also. The statements attached are as follow:—

Balance Sheet as at 31st December, 1938.

Revenue Account for the period from 15th September, 1938, to 31st December, 1938.

Revenue Account for the year ended 31st December, 1938.

Schedule of Subscriptions in Arrears at 31st December, 1938.

Schedule of Subscriptions Paid in Advance at 31st December, 1938.

2. In accordance with the instruction issued by the Council of the Institution only subscriptions (50%) actually collected during the year under review have been taken into account. Neither the whole nor any part of subscriptions in arrears at the balancing date have been brought into account, but the amount outstanding is shown as a Contingent Asset in a certificate on the Balance Sheet and a schedule of these subscriptions is appended. There are a number of other fees due by members which were not paid by 31st December last, and these are included in the same certificate and a list of these fees is attached.

3. The position in regard to Deferred Subscriptions did not change during the year.

4. We hold a certificate from the Commonwealth Bank of the amount of Inscribed Stock in the name of the Institution on 31st December, 1938. The Bank advises that through an application for the conversion of the £200 held in the 4% 1938 Series to the 3½% 1954 Series was on hand it had not been dealt with by the Bank on 31st December, 1938.

5. Depreciation has been written off Furniture and Fittings and Library at a rate of not less than 10% per annum.

6. Subscriptions Paid in Advance prior to 31st December, 1938, are shown as a liability in the Balance Sheet, and a schedule of same is attached.



7. Accrued Interest on investments of Inscribed Stock has been brought into account at the balancing date.

8. The Revenue Account for the period 15th September, 1938, to 31st December, 1938, shows an excess of expenditure over income of £76/16/9, which when deducted from the credit balance in the account for the first portion of the year of £80/8/4, results in an excess of Income over Expenditure for the year of £3/11/7. Accumulated Funds now total £1,678/4/9.

9. We have not seen the leases and sub-leases relating to the premises in Gledden Building rented by you from the University of Western Australia. We understand they are not yet complete. The new rentals as arranged are being paid and received. The rent paid by the Standards Association of Australia is still the same as it was in preceding years.

10. The following payments were made in December, but have not yet been passed for payment by the Committee:—

Dec. 20	E. & R. Stephen Hart—A/c. Special Audit	£10	10	0
„ 20	Apollo Singers—A/c. Annual Dinner ....	5	5	0
„ 20	Savoy Hotel—A/c. Annual Dinner ....	33	19	0
„ 29	O. F. Blakey—A/c. Travelling Expenses (re- covered from headquarters) ....	46	10	0
„ 29	R. S. Sampson Printing Co.—A/c. Printing	4	17	2
„ 29	Illustrations Ltd.—A/c. Photographs ..	2	12	0
		<hr/> £103 13 2 <hr/>		

Included in the expenses of moving to the new premises is a payment of £28 to W. Fairweather & Son for constructing a partition in the old premises, which we understand was necessary under your lease from the W.A. Turf Club upon vacation. We believe, however, that a small portion of this may be recovered.

11. In conclusion, we have to state that subject to the comments contained in this report, and subject to the practice which has received your expressed approval, whereby certain items such as Telephone Charges, Interest on Loans, Deposits, etc., have been taken into account for a period of twelve months other than that covered by the Divisional financial year, the Balance Sheet, as appended hereto, is in our opinion, properly drawn up so as to exhibit the true and proper position of the Perth Division of the Institution as at 31st December, 1938, and contains all the particulars required by the Memorandum and Articles of the Institution and the Rules of the Perth Division.

12. The books have been well kept by your Honorary Treasurer, Mr. A. G. Sloane, and he has given us every facility in the conduct of the audit.

With compliments, we are,

Yours faithfully,

E. & R. STEPHEN HART,

Chartered Accountants (Aust.),  
Auditors.



# THE INSTITUTION OF ENGINEERS, AUSTRALIA (Incorporated by Royal Charter), PERTH DIVISION. BALANCE SHEET AS AT 31st DECEMBER, 1938.

LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
Headquarters I.E. Australia—			Furniture and Fittings—		
Subscriptions, 50% .. .. .	106	19 1	Balance at 31st December, 1937 .. ..	64	17 11
Transfer Fees .. .. .	5	5 0	Additions for the Year .. .. .	425	14 9
Entrance Fee .. .. .	3	3 0		490	12 8
Examination Fee .. .. .	2	2 0	Less Sales .. .. .	£13	2 6
Sale of Publication .. .. .	2	2 6	Depreciation .. .. .	62	11 7
				75	14 1
				414	18 7
Subscriptions Paid in Advance .. .. .	117	11 7			
Subscriptions Suspense Account .. .. .	11	3 9			
Accumulated Funds—	18	7 6			
Balance at 31st December, 1937 .. .. .	1674	13 2	Library—		
Add Excess of Income over Expenditure			Balance at 31st December, 1937 .. .. .	41	4 2
for the year ended 31st December,			Additions for the Year .. .. .	52	3 3
1938 .. .. .	3	11 7		93	7 5
			Less Depreciation .. .. .	9	6 9
				84	0 8
			Sundry Debtors—		
			University of W.A. .. .. .	18	17 5
			Deferred Subscriptions .. .. .	18	7 6
			Accrued Interest .. .. .	4	11 6
				41	16 5
			Investments—		
			Commonwealth Inscribed Stock—		
			1959, 4% .. .. .	100	0 0
			1954, 3½% .. .. .	200	0 0
			1949, 3½% .. .. .	200	0 0
			1948, 3% .. .. .	200	0 0
			1942, 3½% .. .. .	400	0 0
				1100	0 0
			Cash at Bankers and On Hand—		
			Commonwealth Bank .. .. .	177	0 11
			Commonwealth Savings Bank .. .. .	4	15 2
			Cash on Hand .. .. .	2	15 10
				184	11 11
				£1825	7 7

Particulars of the total involved are given in the schedule appended hereto; 50% of the whole or any portion of such arrears if and when collected shall be due to Headquarters.

There is also an amount of £6/6/- due by members for Entrance and Transfer Fees, the whole of which is due to Headquarters when collected.

E. AND R. STEPHEN HART,  
Chartered Accountants (Aust.),  
Auditors.

This is the Balance Sheet referred to in our report to the Division Committee under date 26th January, 1939.

E. H. OLDHAM,  
Hon. Secretary.

A. GORDON SLOANE,  
Hon. Treasurer.  
26th January, 1939.

E. AND R. STEPHEN HART,  
Chartered Accountants (Aust.),  
Auditors.



## REVENUE ACCOUNT FOR THE PERIOD 15th SEPTEMBER, 1938, TO 31st DECEMBER, 1938.

26th January, 1939.

Chartered Accountants (Auds.),  
Auditors.

£195 11 5

**E. AND R. STEPHEN HART,**  
Chartered Accountants (Aust.),  
Auditors.

£195 11 5



**THE INSTITUTION OF ENGINEERS, AUSTRALIA (Incorporated by Royal Charter),  
PERTH DIVISION.**

## REVENUE ACCOUNT FOR THE TWELVE MONTHS ENDED 31st DECEMBER, 1938.

EXPENDITURE.			RECEIPTS.		
	£	s. d.		£	s. d.
To Administration Expenses—			By Subscriptions Received, 50%—		
Salaries, etc. . . . .	72	0 0	For Current Year . . . . .	292	17 8
Rent . . . . .		232 7 7	On Account of Arrears . . . . .	62	3 9
Less Sub-Tenants . . . . .		105 18 6	Paid in Advance in Previous Year . . . . .	3	14 10
Office Cleaning and Lighting . . . . .	126	9 1	Paid in Advance by Members Transferred from Division . . . . .	1	1 0
Telephone Charges . . . . .	36	10 0	Interest Received—		
Postage and Telegrams . . . . .	8	11 8	Commonwealth Government Inscribed Stock . . . . .	44	7 4
General Printing . . . . .	21	5 9	Savings Bank Deposit . . . . .	2	15 1
General Printing . . . . .	34	18 4	Grant from Headquarters . . . . .		
Audit Fees . . . . .	10	10 0	Hire of Lantern . . . . .		
General Expenses . . . . .	10	1 7	Donation to Division . . . . .		
Expenses of Meetings—	320	6 5			
General Meetings . . . . .	22	11 2			
J. and S. Meetings . . . . .	8	2 2			
Prize (J. and S. Section) . . . . .					
Depreciation—					
Furniture and Fittings . . . . .	62	11 7			
Library . . . . .	9	6 9			
Miscellaneous Charges—					
Loss on Annual Dinner . . . . .	19	3 5			
Special Audit to 14th September, 1938	10	10 0			
Expenses in Connection with Moving to New Rooms . . . . .	47	17 1			
Excess of Income Over Expenditure Transferred to Accumulated Funds . . . . .	77	10 6			
	3	11 7			
	£509	5 2			

This is the Revenue Account for the twelve months ended 31st December, 1938, referred to in our report to the Division Committee under date 26th January, 1939. It includes revenue and expenses of both the old and the new Institutions.

both the old and the new institutions.  
E. H. OLDHAM,  
Hon. Secretary.  
A. GORDON SLOANE,  
E. AND R. STEPHEN HART,  
Chartered Accountants (Aust.),  
Auditors.

**A. GORDON SLOANE,**  
Hon. Treasurer.  
26th January, 1939.











