

THE  
Institution of Engineers  
Australia.  
PERTH DIVISION

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Annual Report  
for the  
*Twenty-first Session*  
1940

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GLEDDEN BUILDINGS,  
PERTH.



# The Institution of Engineers, Australia

(Incorporated by Royal Charter, 1938)

## PERTH DIVISION.

### COMMITTEE REPORT FOR THE 1940-41 SESSION.

The retiring Committee has pleasure in submitting its report for the 21st Session of the Perth Division of The Institution.

The President of the Institution, Lieutenant-Col. G. Drake-Brockman, M.C., M.I.E.Aust., who is a member of the Perth Division, presided at the 83rd, 85th and 86th meetings of Council. His term of office has been a busy one as he has carried out military duties as C.R.E., Western Command, in addition to his civil and Institution duties, and it has been notable for the extent to which The Institution has assisted in the Nation's War Effort.

The 20th Annual General Meeting was held at Division Headquarters, Gledden Building, on 1st April, 1940, when the retiring Chairman, Mr. W. A. McCullough, M.I.E.Aust., delivered his address entitled "Railway Development in Western Australia," and the following members were declared elected for the 1940-41 Session:—

Chairman	Mr. J. S. Foxall
Past Chairman	W. A. McCullough
Vice-Chairman	E. H. Oldham
Vice-Chairman	S. J. Hood
Hon. Secretary	J. B. Jukes
Hon. Treasurer	I. Davies

Committee: Assoc.-Prof. O. F. Blakey, Messrs. E. W. C. Godfrey, F. M. Kenworthy, H. Middleton, F. Mills, J. W. Young.

### COMMITTEE MEETINGS.

Eleven Committee Meetings were held during the Session and the attendance was as follows:—

Blakey, O. F.	8 (b)	Kenworthy, F. M.	11
Davies, I.	11	Kilminster, R. W.	4 (c)
Foxall, J. S.	8	McCullough, W. A.	9
Godfrey, E. W. C.	8	Middleton, H.	11
Hood, S. J.	4 (a)	Mills, F.	5
Jukes, J. B.	10	Oldham, E. H.	11
		Young, J. W.	8

(a) Leave of absence, 4 meetings.

(b) Leave of absence, 3 meetings.

(c) Representative of Juniors and Students' Section.

### REPRESENTATION ON COUNCIL.

The Councillors for the 1940-41 Session were Assoc.-Prof. O. F. Blakey, Messrs. W. A. McCullough, and J. W. Young.

The following members have been elected for the 1941-42 Session :—Assoc.-Prof. O. F. Blakey, Messrs. J. S. Foxall and E. H. Oldham.

Mr. J. W. Young attended the 86th Meeting of Council.

### SCRUTINEERS.

The Committee acknowledges with thanks the services of the following members who acted as scrutineers for the 1939-40 Session :—

Messrs. F. B. Durrant, J. D. Leach and D. A. Ross.

### MEMBERSHIP.

The change in Division membership during the Session is shown in the following table :—

	Members	Associate Members	Associate	Juniors	Std.	Total
At 31/12/39	29	160	1	38	44	272
At 31/12/40	28	158	1	32	50	269
	—1	—2	—	—6	+6	—3
	—	—	—	—	—	—

The following members were elected during the year :—

Associate Members:	Juniors:	Students:
W. S. Jones		R. L. Ballantine
K. J. Hicks	G. A. Kennedy	W. D. Benson
S. R. Newsome		S. A. Bocking
		K. J. Kelsall
		J. V. Kreuzspiegel
		P. W. Taylor
		B. A. Watson
		F. E. Watson
		E. T. Weston

Grade Transfers during the year :—

Junior to Associate Member:
J. H. Downie
K. F. Hudson
F. H. Palmer
N. H. Stewart
H. T. Williams

Transfers from other Divisions :—

Associate Members:	Junior:	Student:
R. St. C. Pitt	C. G. Acland	E. D. Bode
N. J. Reynolds		

Transfers to other Divisions :—

Associate Members:	Juniors:	Students:
E. A. Aydall	G. J. S. Nelson	G. G. Lutz
F. R. Barr	L. Umschweif	E. M. Siggs
K. J. Hicks		
G. J. Thornton-Smith		
D. C. Weatherburn		

## ERASURES—

Associate Members:	Junior:	Students:
G. M. St. B. Connor	C. C. Jamieson	J. D. Allingham
W. McNaught		A. R. Driver

## RESIGNATIONS—

Associate Members:	Junior:
H. J. Bromilow	J. R. Le Mesurier
A. F. C. McKechnie	

## DEATHS—

Member:	Associate Members:
Rustat Blake	Richard Clarke Robert McVee

## THE YEAR'S WORK.

The following General Meetings were held during the Session:—

Date	Paper or Address	Author	Att.
22/4/40—	"Tides in the Swan River Estuary" ....	A. Bennett	35
27/5/40—	"The Operation of Rotary Printing Presses" ....	Lieut. K. F. Hudson	37
24/6/40—	(a) "Everyday Engineering Applications of the Thermionic Valve" ....	K. W. Taplin	45
22/7/40—	"Industrial Development in Western Australia" ....	N. Fernie	50
26/8/40—	(b) Sound Films Shown ....		65
23/9/40—	"Mobile Producer Gas Units and Charcoal Fuel" ....	F. Gregson	56
28/10/40—	"Some Economic Minerals in Western Australia" ....	J. S. Foxall	36
25/11/40—	"Problems in the Development of West Australian Sources of Sulphur, Potash and Alumina" Prof. N. S. Bayliss		32

(a) This was a joint meeting with the W.A. Branch of the Institution of Electrical Engineers, London.

(b) This was a social evening at which ladies were present.

The average attendance at the General Meetings was approximately 45.

The Division's representatives have been associated with the following organisations during the Session:—

The Civic and Professional Group of the Ministry of Information.

The Engineering Faculty of the University of W.A.

The Western Australian Panel for the National Service of Consulting Engineers and Architects.

Air Raid Shelters Committee.

A Committee to investigate the Weight Bearing Capacity of Soils.

## FINANCE.

The Auditors' Report, the Annual Balance Sheet and Revenue Account are presented with this report.

## DIVISION HEADQUARTERS.

In October, 1940, the Royal Society of W.A. became a tenant in the Division's Rooms.

The lighting of the Assembly Room, Committee Room and Office has been improved, and further reference books have been added to the Library and the binding of Journals has been kept up to date.

## THE DIVISION'S WAR EFFORT.

The following is a summary of the Division's activities in connection with Australia's War Effort:—

- (a) **Training of Aircraft Fitters:** Since August, 1940, weekly tutorial classes have been held on Thursday nights at the Technical College where the Aircraft Fitters receive their initial training. Our members discuss in an informal way difficulties which the trainees meet in their regular training. The enthusiasm shown by both the trainees and our members, who have acted as instructors, is very pleasing, and the benefit to the recruits has been considerable. Approximately 100 aircraft fitters and mechanics attend each evening with eight tutors. Approximately 16 members have assisted in this work, which is now in charge of a committee consisting of Mr. H. H. Hinton, Convener, Mr. W. Townsend, Mr. W. J. McLaren and Mr. F. H. Palmer.
- (b) **Training of Air Crew Reservists:** In September, 1940, a Committee of five was formed to assist the R.A.A.F. Education Officer to control the instruction of the R.A.A.F. Air Crew Reservists. Assoc.-Prof. O. F. Blakey represents the Institution on this Committee, and Mr. R. W. Kilminster is the Secretary.  
The Scheme has developed rapidly, with Institution members taking a prominent part. Classes have been held continuously up to the present and at least eight members are conducting or assisting with classes on one or two nights a week.
- (c) **Training of Munition Workers:** The training of Munition Workers is carried out at the Perth Technical College, and since January, 1941, weekly tutorial classes have been held by our members. Assistance is given chiefly in the reading of drawings and any difficulties arising out of the regular course. Mr. L. L. Blair is in charge of this work, which has been well received by the trainees, approximately 40 of whom attend every Wednesday evening.
- (d) **Substitute Materials and Development of Resources:** A committee co-operating with the State Department of Industrial Development to arrange lectures and wireless talks and arouse interest in these matters. Three addresses have been given at Division General Meetings in July, October and November, 1940.

It is also pleasing to note that five of the twelve members of the Civil Defence Council recently formed under the Civil Defence Emergency Powers Act, and three of the six members of the Ministry of Munitions Board of Area Management for Western Australia are members of the Division. A member of the Division is a member of the Local Committee controlling dilution under the agreement between the Commonwealth Government and the Engineering Unions, and also a member of the Technical Training Committee controlling the training of men to take the places of tradesmen.

### **DIVISION MEMBERS WITH THE FORCES.**

We are proud to record the names of the following members who have enlisted for active service abroad:—

Lieut. R. L. Ballantine

Major G. W. Blackwood

Pilot Officer L. T. Campie

Lieut. B. F. Dawson

Lieut. C. M. Dimond

Lieut. W. M. Herbert

Lieut. K. F. Hudson

Capt. H. B. Jarvis

Lieut. A. H. R. Odlum

Lieut. A. G. Robertson

Pilot Officer L. C. Scarborough

Lieut. E. K. Steere

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

The activities of this Section were carried out under the Chairmanship of Mr. R. W. Kilminster, and the Section's report is appended.

**JAMES B. JUKES,**

Hon. Secretary.

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

#### **ANNUAL REPORT.**

The Junior and Students' Section had a successful year when judged against the background of international conditions. It was towards the end of June that the Section opened, when a meeting was called to decide whether it should resume its activities. From then until the end of the year, monthly meetings were held and the following papers were presented:—

"A.C. Distribution," by Mr. R. W. Kilminster.

"Air Conditioning," by Mr. E. T. Weston.

"Radio," by Mr. A. H. R. Odlum.

"The Chemical Reactions in the Gas Producer," by Mr. J. V. Kreuzspiegel.

A Smoke Social was held at the University Engineering School on November 5th. Although only a few members were present, they spent an enjoyable evening.

Generally speaking, the year was a success, and an effort will be made to revive the Section earlier this year.

R. W. KILMINSTER,

Chairman.

### AUDITORS' REPORT.

16th January, 1941.

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 for the year ended 31st December, 1940, subject to the following remarks. We append hereto the undermentioned statements:—

Balance Sheet as at 31st December, 1940.

Revenue Account for the year ended 31st December, 1940.

Schedule of Subscriptions in Arrears at 31st December, 1940.

Schedule of Subscriptions paid in Advance at 31st December, 1940.

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.

3. In compliance with a decision of the Council of the Institution the accounts in connection with the Deferred Subscription Fund have been written out of the Books.

4. We hold a certificate from the Commonwealth Bank of the amount of Inscribed Stock in the name of the Institution on 31st December, 1940.

5. Depreciation has been written off Furniture and Fittings and Library at a rate of not less than 10% per annum. No Depreciation has been provided in the current year's accounts in connection with the Davis Bequest Cinema Equipment, which is shown as a separate item in the Balance Sheet. This question was referred to Headquarters. It was decided to show the asset as a separate item in the Balance Sheet, but not to depreciate it each year. Every two or three years the asset is to be revalued and an appropriate amount is to be written off the asset and the amount of the bequest capital, in order that the charge may not be against the ordinary revenue of the Division.

At 31st December, 1939, the amount of the bequest capital was credited to Accumulated Funds; and the debit, when a revaluation is made, will therefore be against Accumulated Funds. It should be noted that the method adopted will lead to the disappearance of the Bequest Capital when the assets in which the money has been invested have worn out. In our opinion it could fairly have been taken that an annual debit against the revenue of the Institution, be regarded as a charge for the use of the equipment during the year. In this way, the Bequest Capital would be maintained permanently at its original amount.

6. Subscriptions paid in Advance prior to 31st December, 1940, as 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 shows an excess of Income over Expenditure for the year of £71/4/3, and this has been credited to Accumulated Funds, bringing the total of the latter account to £1,868/4/2 at 31st December, 1940.

9. 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, 1940, and contains all the particulars required by the Memorandum and Articles of the Institution and the Rules of the Perth Division.

10. We wish to record the satisfactory manner in which the books have been kept during the year, and presented for audit by the Hon. Treasurer, Mr. I. Davies.

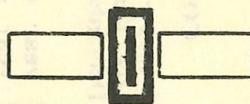
With Compliments, we are,

Yours faithfully,

E. & R. STEPHEN HART,

Chartered Accountants (Aust.),

Auditors.





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

REVENUE ACCOUNT FOR THE TWELVE MONTHS ENDED 31st DECEMBER, 1940.

EXPENDITURE.	RECEIPTS.					
	£	s.	d.	£	s.	d.
To Administration Expenses—				By Subscriptions Received 50%—		
Salaries, etc. . . . .	99	10	0	For Current Year .. .	281	18
Rent .. . . .	2270	0	0	On Account of Arrears .. .	73	11
Less Sub-Tenants . . . .	190	17	0	Paid in Advance in previous year .. .	8	1
	79	3	0		10	0
Office Cleaning and Lighting .. .	58	14	5		363	11
Telephone Charges .. .	8	11	9	Commonwealth Bank Inscribed Stock ..	39	10
Postages and Telegrams .. .	19	8	11	Savings Bank Deposit .. .	1	2
General Printing .. .	51	7	3		0	3
Audit Fees .. .	10	10	0	," Grant from Headquarters .. .	40	12
Insurance .. .	4	8	4	," Miscellaneous Revenue .. .	91	0
General Expenses .. .	5	5	4		10	0
	336	19	0			
11, Expenses of Meetings—						
General Meetings .. .	19	0	7			
J. & S. Meetings .. .	7	12	11			
	26	13	6			
Depreciation—						
Furniture and Fittings .. .	49	8	9			
Library .. .	11	8	4			
	60	17	1			
Excess of Income over Expenditure—						
Transferred to Accumulated Funds ..	71	4	3			
	£495	13	10			
This is the Revenue Account for the Twelve Months ended 31st December, 1940, referred to in our report to the Division Committee under date 16th January, 1941.						
I. DAVIES, Hon. Treasurer.	E. & R. STEPHEN HART, Chartered Accountants (Aust.), Hon. Auditors.					
JAMES B. JUKES, Hon. Secretary. 16th January, 1941.						
						£495 13 10

R. S. Sampson Printing Co., 971-3 May-st., Perth.