

ONE HUNDRED AND FOURTEENTH ANNUAL GENERAL MEETING.

THE One Hundred and Fourteenth Annual General Meeting of the Chemical Society was held in Burlington House at 10.30 a.m. on Friday, April 1st, 1955, the President, Professor W. Wardlaw, being in the Chair. After the notice convening the meeting had been read by Professor E. D. Hughes, Honorary Secretary, the President called upon Professor H. Burton, Honorary Secretary, to present the Report of Council for the year ended December 31st, 1954.

Professor Burton commented on the new subscription arrangements, introduced in 1955, and the closing of the Joint Subscription Scheme at the end of 1954. It was not possible at the present time to report fully on the effect of these changes upon the Fellowship of the Society.

The Society's *Journal* had increased substantially in size and the increased rate of receipt of new papers had continued. The present indications were that the receipts of new papers in 1955 would exceed those in 1952, the highest ever recorded in one year by the Society. The Society's new publication, *Current Chemical Papers*, had been well received and had become established in its first year. Full details of the scope and coverage of this publication were given in the Report. Professor Burton also referred briefly to the other activities of the Society mentioned in the Report. He expressed the thanks of the Society to all those who had assisted the Society in many ways, especially to those who had acted as referees to papers submitted for publication in the *Journal*. In conclusion, Professor Burton paid a tribute to the work of the Society's permanent staff during the past year.

The Accounts for 1954 were presented by the Honorary Treasurer. The balance of income over expenditure was satisfactory but somewhat precarious, since a small increase in the size of the *Journal* or in printers' charges could easily change the surplus into a substantial deficit. The ending of the Society's liability towards the Bureau of Abstracts had reduced the need for working capital and had enabled the Society to increase its investments on the General Purposes Fund and also on the Special Reserve Fund. At the same time, the proportion of investments outside the limited range of trustee securities had been increased. This policy should increase the investment income available to the Society and provide some measure of insurance against the continuing fall in the value of money.

He hoped that the new subscription arrangements which came into force on January 1st, 1955, would enable the Council to present the Society's Accounts in a more readily comprehensible manner. In particular it should be possible to show more clearly the profit or loss on each of the Society's publications. For 1954, however, he could report that *Annual Reports* and *Quarterly Reviews* both earned a satisfactory profit, the *Journal* was produced at a loss, and the new publication, *Current Chemical Papers*, had been self-supporting.

After discussion, the President moved the adoption of the Report of Council and the Accounts. This motion was seconded by Dr. L. E. Sutton, Honorary Secretary, and was carried unanimously.

The President then announced that the following had been elected to fill vacancies on the Council :

Honorary Secretary :

Professor F. Bergel.

Vice-Presidents who have not filled the Office of President :

Professor M. Stacey.

Sir Alexander Todd.

Elected Ordinary Members of Council :

Constituency I :

Dr. D. W. Adamson.
Dr. A. W. Johnson.
Dr. W. Wild.
Dr. G. T. Young.

Constituency II :

Dr. F. H. Pollard.

Constituency III :

Dr. G. R. Barker.
Dr. A. Hickling.

Constituency V :

Professor F. Bell.

It was reported that, to fill the vacancy among the Ordinary Members of Council for Constituency I, caused by the appointment of Professor F. Bergel as Honorary Secretary, Council had, in accordance with Bye-Law 42, nominated Dr. A. Maccoll to serve for one year.

On the motion of the Honorary Treasurer and seconded by Dr. L. E. Sutton, Messrs. W. B. Keen and Co., Finsbury Circus House, London, E.C.2, were re-appointed as the Society's Auditors for 1955.

A vote of thanks to the President, Officers, Council, and Local Representatives, proposed by Sir Alexander Todd, who referred particularly to the services which the retiring Honorary Secretary, Professor H. Burton, had rendered to the Society, was carried with acclamation.

After an interval the meeting was resumed at 11.30 a.m. and the President presented the Corday-Morgan Medal and Prize for 1953 to Dr. J. W. Cornforth.

Professor W. Wardlaw then delivered his Presidential Address, "A Problem in Structural Chemistry." At the conclusion of the Address a vote of thanks, proposed by Professor C. K. Ingold, was carried with acclamation.

REPORT OF COUNCIL FOR 1954.**I. FELLOWSHIP.**

1. *Honorary Fellowship.* The following were elected as Honorary Fellows of the Society on May 6th, 1954 :

Jens Anton Christiansen.
Vincent du Vigneaud.

2. *General.* On December 31st, 1954 the number of Fellows of the Society totalled 9123. Fellowship changes during 1954 and previous years are given in the following Table :

	TABLE 1.			
	1951	1952	1953	1954
Number of Fellows on January 1st	8353	8616	9063	9249
<hr/>				
<i>Additions :</i>				
Elections	700	947	790	670
Reinstatements	25	34	29	26
Miscellaneous	—	1	—	—
	— 725	— 982	— 819	— 696
<i>Deductions :</i>				
Deaths	62	65	58	71
Resignations	273	341	467	583
Removals	127	128	106	167
Miscellaneous	—	1	2	1
	— 462	— 535	— 633	— 822
Net change in year	+ 263	+ 447	+ 186	— 126

Numbers participating in Joint Subscription Scheme :

	Year
1949	4615
1950	4797
1951	4823
1952	4837
1953	4407
1954	4185

3. *Joint Subscription Scheme.* As Fellows will be aware the Chemical Council have issued the following statement :

“ The Chemical Council announces the cessation of the Joint Subscription Scheme at the end of 1954.

“ It will be remembered that the scheme was instituted to afford those who were members at least of both the Chemical Society and the Society of Chemical Industry the opportunity of paying one subscription only which was somewhat less than the sum of the separate subscriptions to the several societies to which they belonged. It also gave a choice of publications which, though less than the full range offered by the societies, none the less satisfied the needs of many who were members of societies participating in the scheme.

“ However, a subscriber who required publications in excess by more than £1 of the basic entitlement under the scheme derived no benefit and, moreover, all benefits have been much lessened by the rise in costs of publications during the last few years.

“ From January 1st, 1955, the subscription structures of the Chemical Society and the Society of Chemical Industry, membership of both of which was essential for participating in the scheme, each become radically different, the Chemical Society having decided to alter its subscription to a basic one of two guineas without entitlement to any publications other than its *Proceedings*. The continued operation of the scheme is thus rendered impracticable.

“ It will therefore be necessary for members who have been joint subscribers to pay their subscriptions in 1955 individually to the various societies to which they belong, and separate subscription renewal forms will be issued by each society.”

It may be added that the closing of the Conjoint Chemical Office will, in future years, result in a significant saving of administrative costs for the Chemical Society.

4. *Congratulations.* The congratulations of the Society were conveyed to the following whose names appeared in the lists of Birthday and New Year Honours :

C.H.

John Christie.

K.B.E.

Lord Trent of Nottingham.

Knight Bachelor.

Alexander Robertus Todd.

C.B.E.

Harold Davies.

James Brierley Firth.

Walter Idris Jones.

Ernest Thomas Osborne.

The Council has also congratulated Professor Linus Carl Pauling (Honorary Fellow) on the award of the Nobel Prize for Chemistry, and also the following who received awards announced by the Royal Society :

Royal Medal.

Professor H. A. Krebs.

Davy Medal.

Professor J. W. Cook.

5. *Deaths.* The names of those Fellows whom the Society has lost by death have been announced in the *Proceedings*. By the passing on November 1st, 1954, of Sir Wallace Akers, the Council lost a friend and colleague who was greatly beloved by all those with whom he came into contact, and who, during his six years as Treasurer, rendered conspicuous service to the Society by his handling of its financial affairs.

The Council also report with deep regret the death, as a result of an accident, of John Theodore Hewitt (C. 1903—5, 1908—11, Vice-President 1922—25).

Obituary notices have been arranged.

II. PUBLICATIONS.

1. *Journal.* During 1954, 1019 scientific communications were received and 961 published. In comparison with 1953 (946 received, 866 published), these figures represent increases of 7 and 11% respectively. During 1954, 19 communications were declined and 30 were withdrawn. Table 2 shows some comparative figures.

TABLE 2.

	1938	1952	1953	1954
Papers and Notes received.....	507	1046	946	1019
Less rejected or withdrawn	11	59	52	49
	496	987	894	970
Papers and Notes published	404	1000	866	961
No. of pages (Papers and Notes)	1917	4901	4028	4552
No. of pages (total, excluding Index Volume)	2120	5056	4200	4712
Average no. of pages per communication...	4.75	4.90	4.65	4.73

The number of communications received in recent years is shown in Table 3. From these figures it appears possible for the first time to assume that the post-war expansion has ceased and that the annual size of the *Journal* is becoming stabilised at about its present level of 900–1000 papers a year.

TABLE 3.

Numbers of Communications Received for Publication.

Year...	1938	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Nos. ...	507	242	347	453	523	548	739	874	910	1046	946	1019

The *Journal* for 1954 contained 995 items made up as shown in Tables 4 and 5 where some comparative figures are also given.

TABLE 4.

Numbers of Items in the Journal.

	1938	1948	1951	1952	1953	1954
Papers (General, Physical, and Inorganic)	102	124	131	194	180	135
„ (Physical Organic)	—	16 *	100	134	93	125
„ (Organic)	275	326	462	556	492	581
Notes.....	27	45	85	116	101	120
Lectures and Addresses	9	5	3	6	6	7
Obituary Notices	37	17	9	21	14	22
Annual General Meeting.....	1	2	1	2	1	1
Extraordinary General Meeting...	—	—	—	—	—	1
Bye-laws of the Chemical Society	—	—	—	—	—	1
Editorial Nomenclature Report...	—	—	1	1	1	1
Report by Symbols Committee of the Royal Society	—	—	1	—	—	—
I.U.P.A.C. List of Atomic Wts.	1	—	1	—	1	1
„ Report of Commissior of Nomenclature of Inorganic Chemistry	—	—	1	—	—	—
	452	535	795	1030	889	995

TABLE 5.

Percentage Distribution in the Journal.

	1948	1949	1950	1951	1952	1953	1954
Papers (General, Physical, and Inorganic)	20.3	16.9	18.4	16.8	19.4	20.8	14.0
„ (Physical Organic) *.....	3.1	14.4	13.8	12.8	13.4	10.8	13.0
„ (Organic)	63.8	60.9	58.7	59.4	55.6	56.7	60.5
Notes	8.8	7.8	9.1	10.9	11.6	11.7	12.5

* Class first introduced December 1948.

Contributions from industrial laboratories and industrial research organisations published during 1954 totalled 126, including 13 published jointly with academic institutions and 3 jointly with Government organisations; this represents 13.1% of the total. Contributions from Government sources totalled 47, including 6 jointly with academic institutions and 3 jointly with industrial organisations. Communications from overseas published during 1954 numbered 194 (20.2%) (1952, 15.7%; 1953, 16.2%). The proportions of contributions from overseas and from non-academic sources thus continued their previous increases. Table 6 gives details of the contributions from overseas, those published jointly with British laboratories being shown in parentheses.

TABLE 6.

	1948	1951	1952	1953	1954
Australia.....	13	38(1)	62(1)	50	62(2)
British Colonies and Protectorates	—	4(1)	6(3)	5(1)	9(2)
Canada	2	1	2(1)	2	6(1)
Egypt	15	22	12	8	16
France.....	2	10	10	7	8(2)
Hungary.....	6	1	3	7	0
India and Pakistan	3	3	3(1)	6	13
Irish Republic	—	5	4	5	5
Israel	2	7	10(2)	20	15
Italy	—	—	—	—	9
New Zealand	14	5	18	12(1)	14(1)
South Africa	1	10	14(1)	7	8(1)
U.S.A.	2	13(7)	8(3)	7(1)	24(3)
Miscellaneous.....	7	2(1)	5	4(1)	5(1)
	67	121(10)	157(12)	140(4)	194(13)

The number of communications received during 1954 less the number rejected or withdrawn was 970; the number published during the year was 961. An analysis has shown that the normal time, to the nearest week, between receipt of communications and their publication (taken as the first day of the following month) is 22 weeks.

2. *Annual Reports on the Progress of Chemistry for 1953 (Volume L)*. These were issued in July 1954 and contained 378 pages (381 in 1953, and 428 in 1952, but this comparison is not quite valid, since a new format with more text per page was adopted in the *Reports* for the current year). To celebrate the half-century a foreword was written by Sir Cyril Hinshelwood.

3. *Quarterly Reviews*. Volume VIII (1954) contained 17 articles occupying 450 pages (Volume VII, 16 articles, 443 pages). A Cumulative Index of Authors and a short Cumulative Index of Subjects was, for the first time, included at the end of the volume.

4. *Current Chemical Papers*. This new publication bears the sub-title "A classified world list of new papers in pure chemistry."

Each issue of every journal received in the Society's Library is scanned immediately on receipt, and the titles of all the papers adjudged to contain original work in pure chemistry, together with those of outstanding reviews, are extracted for the forthcoming issue of *Current Chemical Papers*. This is distributed on the Wednesday nearest to the middle of each month, and the papers listed in that issue were received in the Society's Library during the preceding calendar month.

Thus any paper listed may at once be consulted in the Society's Library; and the Society's photocopying service is available to Fellows of the Society and to members of other Bodies entitled to use the Library.

During 1954 the papers were classified in *Current Chemical Papers* under sixteen sections, and within each section were arranged by principal subjects. When the paper was of primary interest in more than one section, entries were replicated. As a result of the year's experience, the number of sections has been raised to twenty for 1955.

Each entry states the title of the paper (in English), expanded when necessary to

indicate the subject matter, followed by the authors' names and the full journal reference. When the language is not that to be expected from the title of the journal, the language is also given; for Swiss, Dutch, and international journals the language is named if it is other than English, German, or French. For papers in languages other than English, German, or French, any summary in one of those three languages is also mentioned.

A list of the journals covered was included with the April 1954 issue, and a supplementary list with the July 1954 issue. A complete list (containing further additions) is included in the January 1955 issue, where also are given the abbreviations used (these abbreviations differ in some cases from those used by the Society up to 1954, and the new styles will be used also in the Society's other publications).

It is believed that *Current Chemical Papers*, which brings its information more promptly than is possible for an abstract journal, is of value to research workers; but it is intended to supplement rather than to replace abstracts, and no index is issued.

Starting in January 1955, an edition on air-mail paper and also an edition printed only on one side of the paper are available.

Table 7 gives some statistics for *Current Chemical Papers* for the year 1954.

TABLE 7.
Current Chemical Papers, 1954.

	Totals.	Average per issue.
Titles of papers listed	19,531	1628
Issues of journals yielding titles	2,006	167
Journals yielding titles	325	129
Pages (of <i>C.C.P.</i>).....	633	53
Issues of journals not yielding titles	—	137
Total number of journals scanned	437	—

The journals, totalling 437 in December 1954, are believed to include almost all which contain original work in pure chemistry, though additions are continually under investigation. However, only ten Russian journals are received in the Library at present; although these ten cover the great bulk of Russian chemistry, it is hoped that this number will be increased shortly. Coverage of the German literature was not complete at the beginning of the year, but it is believed that by the end of 1954 very little pure chemistry from Germany was being missed.

U.S. translations were included for the older issues of Russian journals not previously cited in *Current Chemical Papers*; when the U.S. translation was received of a Russian journal already included in *Current Chemical Papers*, its receipt was recorded in *Current Chemical Papers*, together with a back-reference to the issue containing the titles from the original Russian.

The figures in Tables 8 and 9, abstracted from the records of *Current Chemical Papers*, may have wider interest. Table 8 gives the numbers of papers, and percentages, classified according to the country in which the journals were published. The Russian figure is swollen by inclusion in it of a backlog of work from a supplement to *Zhurnal obschei Khimii* received in 1954, but this is offset by the incomplete coverage referred to above. The Japanese figures are swollen by duplicate publication in Japanese and English or German. Further, Table 8 does not give a completely accurate picture of the countries of origin of the work; for instance, 20% of the papers in the Society's *Journal* in 1954 contained work done wholly or partly overseas, including 11.25% in other countries of the Commonwealth; the latter figure alone, representing 112 papers, materially increases that in Table 8 of 311 papers; similarly, papers in the Society's *Journal* alone from Israel (15) are nearly double the figure (8) for that country in Table 8. Nor, of course, is the mere number of papers a true indication of their volume, and far less of their value. Nevertheless, in spite of these reservations, some *prima facie* value is doubtless attached to the figures in Table 8; they show at least which countries carry the onus of publication, and give a rough indication of their relative contributions to pure chemistry.

TABLE 8.

Papers in C.C.P., 1954, classified according to the country in which the original journal was published.

	Nos.	%.
U.S.A. ¹	6,104	32.54
U.K.	2,625	13.94
Germany ²	1,889	10.02
U.S.S.R. ³	1,760	9.35
Japan ⁴	1,653	8.78
France	1,113	5.91
Netherlands	509	2.70
Scandinavia	494	2.62
India	443	2.35
Italy	393	2.09
Czechoslovakia ⁵	328	1.74
British Commonwealth (other than the U.K. and India)	311	1.65
Switzerland	297	1.58
Spain and Portugal.....	257	1.37
Hungary	174	0.93
Poland	166	0.89
Jugoslavia.....	94	0.50
Austria	81	0.43
Belgium.....	45	0.24
Latin America	50	0.27
Turkey	12	0.06
Israel	8	0.04
	<hr/>	<hr/>
	18,806	100.00

Notes: (1) U.S.A. does not include U.S. translations of Russian journals. (2) Germany, slightly too low (correct figure probably nearer 11%), owing to incomplete coverage early in the year. (3) U.S.S.R., too low, owing to incomplete coverage. (4) Japan, much too high (correct figure nearer 6–7%), owing to duplicate publication in Japanese and English or German. (5) Much too high (correct figure probably nearer 1.0%), owing to duplication between *Chem. Listy* (in Czech) and *Coll. Czech Chem. Comm.* (in English, German, or French).

Table 9 gives the approximate percentages of the languages in which papers contained in *Current Chemical Papers* were written.

TABLE 9.

Language used in papers included in C.C.P., 1954—Approximate Percentages.

English	59.5
German	13.2
Russian	9.4
French.....	7.1
Japanese	4.4
Italian	2.1
Spanish and Portuguese	1.6
Czech	0.9
Hungarian	0.5
Polish	0.5
Others	0.8
	<hr/>
	100.0

5. *Special Publication No. 1.* A new range of publications, called "Special Publications," has been sanctioned, to include collations of data, reports of symposia, or other chemical material which, in the opinion of Council, merit publication by the Society but do not find their place in any of the Society's other publications. The first of the series, *The Kinetics and Mechanism of Inorganic Reactions in Solution: A Survey of Recent Work*, was published on November 2nd, 1954. It is a report of a symposium held in the Society's rooms on February 4th, 1954, and organised by Dr. L. E. Sutton and Dr. J. Chatt. Dr. K. W. Sykes was Specialist Editor for this report, which occupied 84 pages, similar in size to those of *Quarterly Reviews*.

III. MEETINGS.

1. *Scientific Meetings.* Details of Scientific Meetings held in London and those arranged at various centres by Local Representatives of the Society are given in Appendix A. The meetings in London included a *Conversazione* held at the Senate House on May 7th.

2. *Anniversary Meetings.* The Anniversary Meetings were held in Manchester on March 31st to April 2nd.

3. *Centenary Lectures.* Dr. R. H. Manske delivered a Centenary Lecture, entitled "The Story of the *iso*Quinoline Alkaloids," in London, Edinburgh, Liverpool, Newcastle, and St. Andrews.

IV. LIBRARY.

1. *Report of the Joint Library Committee.* This is reproduced as Appendix B.

2. *Appointment of Librarian.* The Council received with great regret the resignation of Mr. A. E. Cummins on grounds of ill health from the appointment of Librarian. To mark the services he has rendered to the Society and to all who have used the Library the Council has arranged for a presentation to be made to Mr. Cummins.

To fill the vacancy the Council has appointed Mr. R. G. Griffin, formerly Librarian at the Brewing Industry Research Foundation, as Librarian.

V. OTHER ACTIVITIES.

1. *Grants for Research.* Grants from the Research Fund totalling £744 10s. were made to thirty-two applicants.

2. *Longstaff Medal.* The Longstaff Medal for 1954 was awarded to Sir John Lennard-Jones.

3. *Flintoff Prize.* The first award of the Flintoff Prize was made to Professor M. Calvin.

4. *Corday-Morgan Medal and Prize.* The Corday-Morgan Medal and Prize for 1952 was awarded to Dr. J. Baddiley.

5. *Harrison Memorial Prize.* The Harrison Memorial Prize for 1953 was awarded to Dr. R. J. Gillespie.

6. *Corday-Morgan Memorial Fund Executive.* The Corday-Morgan Memorial Fund Executive have reported that the Corday-Morgan Commonwealth Fellowship for 1954-55 has been awarded to Dr. L. E. Smythe, University of Tasmania.

7. *Royal Horticultural Society.* Sir John Simonsen represented the Society at the 150th Anniversary Meetings on July 27th and presented an Address.

VI. ADMINISTRATION.

1. *Council.* At the Annual General Meeting on April 2nd, the following were declared elected :

President	Professor W. Wardlaw.
Vice-Presidents who have not filled the Office of President	Professor E. R. H. Jones, Professor R. P. Linstead, Professor H. W. Melville.
Honorary Treasurer	Mr. M. W. Perrin.
Elected Ordinary Members of Council.....	Dr. C. C. Addison, Dr. V. C. Barry, Dr. E. J. Bourne, Dr. E. A. Braude, Dr. H. M. N. H. Irving, Professor J. M. Robertson, Professor H. N. Rydon, Professor H. D. Springall.

2. *Local Representatives.* The following have been elected to fill vacancies among the Society's Local Representatives :

Birmingham	Dr. J. C. Tatlow in place of Dr. E. J. Bourne.
Bristol	Dr. P. Woodward in place of Dr. F. H. Pollard.
Glasgow	Dr. D. S. Payne in place of Dr. F. D. Gunstone.
Hull	Dr. G. W. Gray in place of Dr. W. B. Orr.
Irish Republic	Dr. D. O'Tuama in place of Dr. V. C. Barry.
Leeds	Dr. E. Rothstein in place of Dr. P. A. Briscoe.
Oxford.....	Mr. L. A. K. Staveley in place of Dr. H. M. N. H. Irving.
St. Andrews and Dundee	Dr. C. Horrex in place of Dr. H. T. Openshaw.

VII. FINANCE.

1. *Accounts.* The Accounts for the year under review reflect the continuing improvement in the financial position of the Society, and it is gratifying to report that this is the first time for many years that the Society has been able to show a surplus in its accounts without the assistance of outside support. In part, of course, this is due to the cessation of payments to the Bureau of Abstracts which were balanced by outside support, but it can also be attributed to the increased selling price of the Society's publications. Notwithstanding the relatively satisfactory position at the end of 1954, it would be well to record that the Society's expenditure is governed by the size of its *Journal*, and that a relatively small increase in the number of pages could easily turn a small surplus into a substantial deficit.

It is a matter of satisfaction that the Society's new publication, *Current Chemical Papers*, has been self-supporting in 1954. This publication fulfils some of the functions of *British Chemical Abstracts "A"*.

Changes in the major items of income and expenditure over the past seven years are given in Table 10.

TABLE 10.

	<i>Income.</i>			<i>Expenditure.</i>		
	Annual sub- scriptions (net). £	Sale of publications. £	Outside grants. £	Administra- tion. £	Journal of the Society. £	Contributions to Bureau of Abstracts. £
1948	20,745	9,503	3,400	7,855	19,997	5,300
1949	22,629	13,778	5,233	7,492	31,963	5,300
1950	26,884	16,784	15,984	7,468	31,713	12,084
1951	26,928	22,358	33,500 *	7,632	36,309	14,000
1952	29,273	21,365	49,550	7,178	53,439	26,000
1953	38,801	30,231	20,100	7,619	44,542	17,800
1954	39,111	32,926	Nil	7,788	46,535	Nil

* Includes £9500 in respect of previous years.

2. *Library.* The thanks of the Council have been accorded to the Chemical Council for a grant of £821 11s. 10d. towards the maintenance costs of the Library and also to those Societies who have continued to contribute on a membership basis in return for the use of the Library by their members.

3. *Investments.* Council has authorised the investment of part of the balances held on the General Purposes Fund and Special Reserve Fund Accounts which were no longer required as working capital. The apportionment of the Society's investments between the different categories of trustee and non-trustee investments has also been reviewed, and various changes have been authorised. The net result of these and of small changes on the other funds is given in the Schedule of Investments appended to this Report. The additional investments should considerably increase the investment income in future years.

4. *A. G. Perkin Bequest.* The bequest made to the Society under the Will of the late Professor A. G. Perkin has become payable. It amounts to £4305 19s. 5d., one-fifth of the residuary estate, and the Society is directed to invest the capital and to apply the income to the general purposes of the Society. The testator expressed the wish that the income should, so far as it could conveniently be done, be applied for the purpose of reducing the expense incurred in the publication of the *Journal*.

VIII. REPRESENTATIVES OF THE SOCIETY ON OTHER BODIES.

In 1954 the Society was represented on various bodies by the following :

" *Acta Metallurgica* " :

International Journal of the Science of Metals : Dr. U. R. Evans.

Association of British Chemical Manufacturers :

Joint Technical Committee on Patents : Dr. J. T. Hewitt.

Barker Committee :

Formed to support the publication of the Barker Index of the characteristic angles of crystalline compounds : Dr. G. M. Bennett.

Bristol University Court :

Professor C. E. H. Bawn.

British National Committee for Chemistry :

Sir Eric Rideal, Professor E. D. Hughes, Professor M. Stacey.

British National Committee for Crystallography :

Professor J. M. Robertson.

British Standards Institution. Technical Committees :

- C/17. Viscosity : Dr. A. E. Dunstan.
C/34. Standardization of pH Scale : Professor H. T. S. Britton.
CHE/36. Chemicals and Chemical Plant for Electroplating : Dr. J. R. I. Hepburn.
DAC/-. Dairying Industry Standards Committee : Mr. Eric Voelker.
FCC/HCC/1. Nomenclature for Fine and Heavy Chemicals Industries : The Editor.
HCC/2. Desiccants : Dr. B. Lambert.
LBC/-. Scientific Glassware and Related Laboratory Apparatus, Industry Standards Committee : Dr. G. R. Davies.
LBC/1/1. Dean and Stark and Ubbelohde Apparatus : Dr. G. R. Davies.
LBC/5. Hydrometers : Mr. R. Sutcliffe.
LBC/6. Standard Distillation Apparatus : Mr. R. Sutcliffe.
LBC/11. Microchemical Apparatus : Dr. R. Belcher, Dr. H. D. K. Drew.
LBC/11/1. Apparatus for Microchemical Combustion Methods : Dr. R. Belcher.
LBC/11/3. Accessory Apparatus connected with Gravimetric Microanalysis : Dr. R. Belcher.
LBC/16. Standardization of Glass Electrodes : Dr. D. J. G. Ives.
LBC/16/2. Drafting Work on pH Meters : Dr. D. J. G. Ives.
LBC/17. Apparatus Drawing Conventions : The Editor.
LBC/18. Laboratory Furniture and Fittings : Mr. R. Sutcliffe.
LGE/19. Colour Terminology : Dr. F. M. Hamer.
PAC/13. Filter Papers : Mr. F. H. Burstall.
PAC/13/1. Laboratory Filter Paper (Drafting) : Mr. F. H. Burstall.
PCC/1. Nomenclature for Pest Control Products : The Editor.
RUC/8. Rubber Tubing and Bungs for Laboratory Use : Dr. L. C. Bateman.
USM/1. Co-ordination of Definitions, Units and Technical Date : The Editor.
USM/1/2. Glossary of Terms used in Nuclear Sciences : The Editor.
USM/2. Abbreviations and Symbols : The Editor.
USM/2/2. Abbreviations and Letter Symbols (Chemical Engineering and Applied Chemistry) : The Editor.

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APPENDIX A.

MEETINGS HELD DURING 1954.

IN LONDON.

(Meetings were held in the Rooms of the Society at Burlington House unless otherwise stated.)

January 21st, *Meeting* for the reading of original papers; February 4th, *Symposium*, "Kinetics and Mechanism of Inorganic Reactions in Solution. A Survey of Recent Work," arranged by Dr. L. E. Sutton and Dr. J. Chatt (contributions from the following were read and discussed: Dr. A. W. Adamson, Dr. J. H. Baxendale, Professor F. S. Dainton, Dr. R. Hurst, Professor C. K. Ingold, Dr. H. M. N. H. Irving, Dr. K. W. Sykes, and Dr. R. G. Wilkins); February 18th, *Meeting* for the reading of original papers; March 25th, *Liversidge Lecture*, "Organometallic Compounds containing Fluorocarbon Radicals," by Professor H. J. Emeléus; May 6th, *Centenary Lecture*, "The Story of the isoQuinoline Alkaloids," by Dr. R. H. Manske; May 7th, *Reception and Conversazione*, at The Senate House, University of London, W.C.1. (by kind permission of the University authorities); June 3rd, *Hudson Memorial Lecture*, by Professor E. L. Hirst; October 14th, *Meeting* for the reading of original papers; November 4th, at the Imperial College of Science and Technology, *Lecture*, "On Open and Closed Sequences in Reaction Kinetics," by Professor J. A. Christiansen (*Honorary Fellow*); November 18th, at the Imperial College of Science

and Technology, *Tilden Lecture*, "Molecular Rearrangements," by Professor M. J. S. Dewar; December 2nd, *Meeting* for the reading of original papers; December 16th, *Hugo Müller Lecture*, "Some Newer Aspects of the Organic Chemistry of Nitrogen," by Professor G. R. Clemo.

OUTSIDE LONDON

Aberdeen. Joint meetings with the Royal Institute of Chemistry and the Society of Chemical Industry, at Robert Gordon's Technical College: January 21st, *Lecture*, "New Outlooks in Electrochemistry," by Professor W. F. K. Wynne-Jones; February 18th, *Lecture*, "The Scientific Examination of Paintings," by Dr. A. E. Werner; March 5th, *Lecture*, "Recent Advances in Carotenoid Chemistry," by Dr. T. W. Goodwin; April 1st, *Lecture*, "Some Aspects of the Newer Techniques in Analytical Chemistry," by Dr. J. R. Nicholls; October 21st, *Lecture*, "Some Aspects of the Chemistry of Amino-sugars," by Professor M. Stacey; December 10th, *Lecture*, "Terylene," by Mr. J. R. Whinfield.

Birmingham. Joint meetings with the University Chemical Society, at the University: January 22nd, *Lecture*, "Aromatic Substitution," by Professor M. J. S. Dewar; March 12th, *Lecture*, "Friction and Lubrication," by Dr. D. Tabor; October 22nd, *Lecture*, "Some Recent Advances in the Stereochemistry of Polycyclic Hydroaromatic Compounds," by Dr. J. Walker; November 19th, *Lecture*, "The Structure and Properties of Olefin Complexes," by Dr. J. Chatt; December 3rd, *Lecture*, "Some Aspects of the Organic Chemistry of Phosphorus," by Professor H. N. Rydon.

Bristol. Joint meetings with the Royal Institute of Chemistry and the Society of Chemical Industry, at the University, unless otherwise stated: January 14th, *Lecture*, "Cacao Diseases," by Mr. R. V. Wadsworth; January 21st, *Lecture*, "Some New Methods in Analytical Chemistry," by Dr. R. Belcher; February 4th, *Lecture*, "The Radiochemical Centre at Amersham," by Dr. W. P. Grove; February 17th, at the Technical College, Gloucester, *Lecture*, "The Use of Radiochemical Methods in Analysis," by Mr. A. Smales; March 4th, also joint with the Institute of Fuel, *Lecture*, "National Fuel Resources and their Utilisation," by Dr. A. Parker; March 18th, *Lecture*, "Patent Specifications regarded as Chemical Literature," by Dr. W. A. Sylvester; October 7th, *Lecture*, "Sulphur and Sulphuric Acid from Petroleum," by Mr. F. E. Hixon; October 13th, also joint with the Plastics Institute, at the Technical College, Gloucester, *Lecture*, "Some Newer Plastics and their Uses," by Dr. G. Darnton; October 28th, *Lecture*, "Some Recent Advances in Fluorine Chemistry," by Professor H. J. Emeléus; November 4th, *Lecture*, "Melting and Crystal Structure," by Professor A. R. Ubbelohde; November 11th, at the Technical College, Gloucester, *Lecture*, "Plant Growth Substances—Some Recent Developments," by Professor R. L. Wain; November 18th, *Social Evening*; December 2nd, also joint with the Institute of Metals and the Chemical Engineering Group of the Society of Chemical Industry, *Lecture*, "The Thermochemistry of Alloys," by Dr. A. R. Harding.

Cambridge. Joint meetings with the University Chemical Society, at the Chemical Laboratory, Pembroke Street; January 29th, *Lecture*, "The Chemical Society, Present and Future," by Dr. R. S. Cahn; February 5th, *Lecture*, "Reactions in Liquid Dinitrogen Tetroxide," by Dr. C. C. Addison; March 5th, *Lecture*, "Azaporphyrins," by Professor R. P. Linstead; October 29th, *Lecture*, "Gas-Liquid Chromatography," by Dr. A. J. P. Martin; November 5th, *Lecture*, "Some Mould Colouring Matters," by Professor A. Robertson; December 3rd, *Lecture*, "The Polymerisation of Vinyl Ethers," by Professor D. D. Eley.

Edinburgh. Joint meetings with the Royal Institute of Chemistry and the Society of Chemical Industry, held at the North British Station Hotel, unless otherwise stated: January 14th, *Lecture*, "The Stereochemistry of *cyclo*Hexane Derivatives," by Professor D. H. R. Barton; February 2nd, also joint with the University Chemical Society, at the Biochemistry Lecture Theatre, Teviot Place, *Lecture*, "New Kinds of Big Molecules," by Professor H. W. Melville; February 18th, *Lecture*, "Recent Progress in the Study of Metallic Corrosion," by Dr. W. H. J. Vernon; March 18th, *Meeting* for the reading of original papers; April 27th, in the Medical Building, Teviot Place, *Official Meeting and*

Centenary Lecture, "The Story of the *iso*Quinoline Alkaloids," by Dr. R. H. Manske; October 14th, *Lecture*, "Chemical Research at Harwell," by Dr. R. Spence; November 11th, *Visit* to the Research Laboratories of the University Chemistry Department; December 9th, *Lecture*, "Recent Researches in Crystallography," by Professor Kathleen Lonsdale.

Exeter. At the Washington Singer Laboratories, unless otherwise stated: February 12th, joint meeting with the Royal Institute of Chemistry, *Lecture*, "The Chemical Effects of Nuclear Transformations," by Dr. A. G. Maddock; March 5th, joint meeting with the Royal Institute of Chemistry and the Society of Chemical Industry, at the Technical College, Plymouth, *Lecture*, "Rubber," by Dr. C. M. Blow; March 9th, *Tilden Lecture*, "Aromatic Character in Seven-membered Ring Systems," by Dr. A. W. Johnson; November 26th, *Lecture*, "Some Applications of Electron Diffraction to Problems in Inorganic Chemistry," by Dr. L. E. Sutton; December 17th, *Lecture*, "There and Back again; Some Aspects of the Problem of Hysteresis," by Professor D. H. Everett.

Glasgow. January 22nd, at the Royal Technical College, *Lecture*, "The Investigation of Natural Products derived from Wood," by Professor F. E. King; February 19th, at the University, Annual General Meeting of local Fellows followed by a *Meeting* for the reading of original papers; October 22nd, joint meeting with the Alchemists' Club and the Andersonian Chemical Society, at the University, *Lecture*, "Some Recent Advances in Carbohydrate Chemistry," by Professor M. Stacey; November 19th, at the Royal Technical College, *Lecture*, "The Chemical Nature of Some Metal Alkyls," by Professor G. E. Coates.

Hull. At the University: January 21st, joint meeting with the Royal Institute of Chemistry, *Lecture*, "Proteins and Plastics," by Professor J. C. Speakman; February 18th, joint meeting with the University College Scientific Society, *Lecture*, "Allene Chemistry," by Professor E. R. H. Jones; October 21st, *Lecture*, "The Work of the British Rubber Producers' Research Association," by Dr. L. C. Bateman; December 9th, joint meeting with the Royal Institute of Chemistry, *Lecture*, "Chemotherapy and Essential Trace Elements," by Professor A. Albert.

Irish Republic. January 27th, at Trinity College, Dublin, *Lecture*, "Studies in the Chemistry of Flavones," by Professor T. S. Wheeler; March 23rd, March 24th, and March 26th, joint meetings with the Institute of Chemistry of Ireland, the Royal Institute of Chemistry and the Society of Chemical Industry, held at Cork, University College, Dublin, and University College, Galway, respectively, *Lecture*, "Some Aspects of Oligo and Polysaccharide Synthesis," by Dr. E. J. Bourne; April 7th, joint meeting with the Institute of Chemistry of Ireland, the Royal Institute of Chemistry, and the Society of Chemical Industry, at University College, Dublin, *Lecture*, "The Steric Course of Asymmetric Synthesis," by Professor Dr. V. Prelog; May 7th, joint meeting with the Werner Society, at Trinity College, Dublin, *Lecture*, "Past, Present, and Future in Theoretical Chemistry," by Professor C. A. Coulson; December 8th, at University College, Dublin, *Lecture*, "Paul Ehrlich, 1854—1915," by Dr. J. G. Belton.

Leeds. At the University: January 18th, *Royal Institute of Chemistry Lecture*, "The Naturally Occurring Polyacetylenes," by Professor B. Lythgoe; February 15th, *Royal Institute of Chemistry Lecture*, "Corrosion Theory in Practice," by Dr. T. P. Hoar; March 9th, joint meeting with the University Chemical Society, *Lecture*, "The Stereochemistry of *cyclo*Hexane Derivatives," by Professor D. H. R. Barton; March 15th, *Royal Institute of Chemistry Lecture*, "Chemistry, Biochemistry, and Isotopic Tracer Technique," by Dr. G. J. Popjack; October 26th, joint meeting with the University Chemical Society, *Royal Institute of Chemistry Lecture*, "Polyester Fibres and Terylene," by Dr. R. Hill; November 2nd, *Lecture*, "The Mechanism of Some Electron-transfer Reactions," by Professor C. E. H. Bawn; November 22nd, *Royal Institute of Chemistry Lecture*, "The Lotoflavin Problem; the Study of a Toxic Natural Product," by Professor T. S. Wheeler; December 13th, joint meeting with Bradford Chemical Society, at Bradford, *Royal Institute of Chemistry Lecture*, "Configuration and Properties of Polymer Molecules in Dilute Solution," by Professor P. J. Flory. Fellows were invited to all meetings of the Royal Institute of Chemistry, Leeds Area Section, as well as to those organised by other bodies.

Liverpool. Joint meetings with the University Chemical Society, the Royal Institute of Chemistry, the Society of Chemical Industry, and the British Association of Chemists,

at the University: January 21st, *Lecture*, "Fluorescence," by Dr. E. J. Bowen; March 25th, *Lecture*, "The Biochemistry of Adrenocortical Hormones," by Professor G. F. Marrian; April 23rd, *Centenary Lecture*, "The Story of the *iso*Quinoline Alkaloids," by Dr. R. H. Manske; October 28th, *Lecture*, "Chemisorption and Catalysis," by Dr. F. C. Tompkins; December 2nd, *Lecture*, "Macrozamin and the Aliphatic Compounds," by Professor B. Lythgoe.

Manchester. At the University: January 28th, joint meeting with the Royal Institute of Chemistry and the Society of Chemical Industry, *Lecture*, "Polymerisation and its Reversal," by Professor F. S. Dainton; February 25th, *Lecture*, "Some Problems in the Chemistry of Polypeptides," by Professor H. N. Rydon; March 31st, joint meeting with the Royal Institute of Chemistry, the Society of Chemical Industry, and the Institute of Petroleum *Symposium*, "Dynamic Stereochemistry" (contributions from the following were read and discussed: Professor K. Alder, Professor D. H. R. Barton, Professor E. D. Hughes, Dr. P. B. de la Mare, Professor Dr. V. Prelog, and Professor S. Winstein); March 31st to April 2nd, *Anniversary Meetings*; October 1st, joint meeting with the Royal Institute of Chemistry and the Society of Chemical Industry, *Lecture*, "Some Aspects of Research on Plant Growth-regulating Substances," by Professor R. L. Wain; November 11th, *Meeting* for the reading of original papers; December 2nd, joint meeting with the Institute of Physics, *Lecture*, "Configuration and Properties of Polymer Molecules in Dilute Solution," by Professor P. J. Flory.

Newcastle and Durham. At King's College, Newcastle-on-Tyne: January 15th, *Bedson Club Lecture*, "Biochemistry and Parasitism," by Professor E. Baldwin; February 26th, *Bedson Club Lecture*, "Adhesion and Surface Properties of Solids," by Dr. F. P. Bowden; April 30th, *Centenary Lecture*, "The Story of the *iso*Quinoline Alkaloids," by Dr. R. H. Manske. Joint Meetings with the Durham Colleges Chemical Society at the University, Durham: October 11th, *Lecture*, "Recent Developments in Radiation Chemistry," by Dr. N. Miller; October 25th, *Lecture*, "Chemical Microscopy," by Dr. N. H. Hartshorne. At King's College, Newcastle-on-Tyne: October 29th *Bedson Club Lecture*, "Some Physicochemical Studies on π -Electron Compounds," by Professor A. R. Ubbelohde; November 12th, *Bedson Club Lecture*, "The Comparative Organic Chemistry of Nitrogen, Phosphorus and Arsenic," by Dr. F. G. Mann. At the University, Durham: November 24th, joint meeting with the Royal Institute of Chemistry and the Society of Chemical Industry, *Lecture*, "The Molecular Structure of Benzene, Some Unsolved Problems," by Professor E. G. Cox; November 29th, joint meeting with the Durham Colleges Chemical Society, *Lecture*, "Some Aspects of the Chemistry of Amino-sugars," by Professor M. Stacey; at King's College, Newcastle-on-Tyne, December 3rd, *Meeting* for the reading of original papers.

Northern Ireland. At Queen's University, Belfast: February 17th, joint meeting with the Society of Chemical Industry, *Lecture*, "Krillium Soil Conditioner," by Dr. A. J. Lloyd; March 5th, joint meeting with the Royal Institute of Chemistry, *Lecture*, "Chemical Engineering and Industrial Productivity," by Professor D. M. Newitt; April 5th, *Lecture*, "The Steric Course of Asymmetric Synthesis," by Professor Dr. V. Prelog; April 22nd, *Meeting* for the reading of original papers; May 7th, *Lecture*, "Oxidation in Aqueous Solution," by Dr. J. W. Baxendale; joint meetings with the Royal Institute of Chemistry and the Society of Chemical Industry: September 6th, *Lecture*, "Spot Test Methods of Analysis," by Professor P. W. West; October 14th, *Lecture*, "The Production and Properties of Titanium and Titanium Alloys," by Dr. N. P. Inglis; November 1st, *Lecture*, "The Polymerisation of Sulphur," by Professor G. Gee.

North Wales. Joint meetings with the University College of North Wales, Chemical Society, at the University College of North Wales, Bangor: March 18th, *Lecture*, "Some Problems in the Chemistry of Polypeptides," by Professor H. N. Rydon; May 6th, *Lecture*, "Atoms and Molecules in Cages," by Mr. H. M. Powell; October 21st, *Lecture*, "Electronic Mechanisms of Oxidation," by Dr. W. A. Waters.

Nottingham. Joint meetings with the University Chemical Society, at the University, unless otherwise stated: January 25th, joint meeting with Leicester University College Chemical Society, at University College, *Lecture*, "Some Recent Progress in Natural-product

Chemistry," by Professor D. H. R. Barton; January 28th, *Lecture*, "Structures and Configurations," by Professor E. E. Turner; February 9th, *Lecture*, "Recent Advances in the X-Ray Study of Complex Molecules," by Professor J. M. Robertson; February 25th, *Lecture*, "The Modern Theory of Aromatic Substitution," by Professor H. C. Longuet-Higgins; October 14th, *Lecture*, "Direct Hydroxylation of Organic Compounds," by Professor W. Bradley; October 18th, joint meeting with Leicester University College Chemical Society, at the University College, *Lecture*, "The Stereochemistry of Catalytic Hydrogenation," by Professor R. P. Linstead; November 25th, *Lecture*, "Mould Colouring Matters," by Professor A. Robertson.

St. Andrews and Dundee. January 15th, at the United College, St. Andrews, *Royal Institute of Chemistry Lecture*, "Recent Advances in Inorganic Chromatography," by Dr. F. H. Pollard; February 5th, joint meeting with the St. Andrews University Chemical Society, at the United College, *Lecture*, "Atoms and Molecules in Cages," by Mr. H. M. Powell; February 11th, at University College, Dundee, *Lecture*, "The Structure of Flames," by Dr. J. W. Linnett; February 19th, joint meeting with the St. Andrews University Chemical Society, at the United College, *Lecture*, "Some Naturally Occurring Polyacetylenes," by Professor B. Lythgoe; February 19th, at University College, Dundee, *Royal Institute of Chemistry Lecture*, "The Sterols—Their Chemistry and Metabolism," by Dr. R. P. Cook; February 25th, at University College, Dundee, *Chemistry Department Lecture*, "Steel," by Sir Charles Goodeve; February 26th, joint meeting with St. Andrews University Chemical Society, at United College, *Lecture*, "The Structure and Properties of Synthetic Polypeptides," by Dr. C. H. Bamford; March 4th, at University College, Dundee, *Society of Chemical Industry Lecture*, "Recent Developments in Carotenoid Biochemistry," by Dr. T. W. Goodwin; March 19th, at University College, Dundee, *Royal Institute of Chemistry Lecture*, "Technical Education," by Professor H. B. Nisbet; April 16th, at University College, Dundee, *Royal Institute of Chemistry Lecture*, "Change of Scale of Chemical Reaction," by Dr. S. J. Green; April 29th, at the United College, St. Andrews, *Centenary Lecture*, "The Story of the *iso*Quinoline Alkaloids," by Dr. R. H. Manske; May 6th, at University College, Dundee, *Lecture*, "The Relation between Theory and Experiment in Physical Chemistry," by Professor E. A. Guggenheim; November 5th, joint meeting with the St. Andrews University Chemical Society, at United College, *Lecture*, "The Physical Chemical Nature of Muscle Elasticity," by Professor A. V. Hill; November 19th, joint meeting with the St. Andrews University Chemical Society, at United College, "Chemicals from Petroleum," by Dr. A. McLean.

Sheffield. At the University, January 29th, joint meeting with the Sheffield University Chemical Society, *Lecture*, "Electron Diffraction in Gases applied to Inorganic Chemistry," by Dr. L. E. Sutton; February 11th, joint meeting with the Sheffield University Chemical Society, *Lecture*, "Modern Fluorine Chemistry," by Dr. R. N. Haszeldine; March 4th, *Official Meeting and Lecture*, "Organic Reactions of Nitrous Acid," by Professor C. K. Ingold; October 21st, joint meeting with the Sheffield University Chemical Society, *Lecture*, "The Polymerisation of Sulphur," by Dr. G. Gee; November 18th, joint meeting with the Sheffield University Chemical Society and the Royal Institute of Chemistry, *Lecture*, "The Regulation of Plant Growth with Chemicals," by Professor R. L. Wain.

Southampton. At the University: February 12th, joint meeting with the University Chemical Society and the Royal Institute of Chemistry, *Lecture*, "Photochemical and Spectroscopic Methods of Studying Fast Reactions," by Professor R. G. W. Norrish. Joint meetings with the University Chemical Society: February 26th, *Lecture*, "The Chemical Nature of Some Metal Alkyls," by Professor G. E. Coates; May 7th, *Lecture*, "The Stereochemistry of *cyclo*Hexane Derivatives," by Professor D. H. R. Barton; October 29th, joint meeting with the University Chemical Society and the Royal Institute of Chemistry, *Lecture*, "Fluorocarbon Chemistry," by Dr. R. N. Haszeldine; November 26th, *Tilden Lecture*, "Molecular Rearrangements," by Professor M. J. S. Dewar.

South Wales. January 15th, joint meeting with the University College of Swansea Chemical Society, at University College, Swansea, *Lecture*, "Some Recent Developments in Theoretical Organic Chemistry," by Professor M. J. S. Dewar; January 25th, at University College, Cardiff, *Lecture*, "Radiation Chemistry," by Professor F. S. Dainton; February

15th, at University College, Cardiff, *Lecture*, "Recent Work on Organic Inclusion Compounds and their Uses," by Professor W. Baker; April 26th, joint meeting with the University College of Swansea Chemical Society and the Royal Institute of Chemistry, at the University College, Swansea, *Lecture*, "Some Reactions of Free Radicals," by Professor W. A. Noyes, jun.; October 18th, at University College, Cardiff, *Lecture*, "Some Applications of Electron Diffraction to Problems in Inorganic Chemistry," by Dr. L. E. Sutton; October 29th, joint meeting with the University College of Swansea Chemical Society, at University College, Swansea, *Lecture*, "Shapes of Molecules," by Dr. J. W. Linnett; November 12th, joint meeting with the University College of Swansea Chemical Society and the Royal Institute of Chemistry, at University College, Swansea, *Lecture*, "Reactions of Some Organic Cations," by Professor H. Burton; November 22nd, at University College, Cardiff, *Lecture*, "The Chemistry of Allenic Systems," by Professor E. R. H. Jones.

APPENDIX B.

ANNUAL REPORT OF THE JOINT LIBRARY COMMITTEE FOR THE YEAR 1954.

In March the Librarian, Mr. A. E. Cummins, was taken seriously ill, and this led to his resignation in September. The vacancy so caused has now been filled by Mr. R. G. Griffin, F.L.A., formerly Librarian of the Brewing Industry Research Foundation.

A report on the Library was prepared by an independent consultant, Mr. W. J. Bishop. As a result of this report, substantial improvements in Library accommodation are at present under way.

Readers have made very great use of the photocopying service during the past twelve months. The number of book pages copied during 1954 was 5673, as against 2639 the previous year. In addition to this, several hundred Infra-red Spectra Sheets were copied, and sections of the staff were also supplied with a great deal of photocopied material. There is some evidence to show that the considerably greater use of the photocopying service is related to the publication of *Current Chemical Papers* and to the fall in the number of readers attending the Library.

Analysis

	Attendances.	Books borrowed.	Additions.		
			Books.	Volumes of periodicals.	Pamphlets.
1954	9,370	7706 (3000 by post)	410	886	69
1953	10,140	8304 (3326 by post)	362	815	143

A number of gifts have been made to the Library during the year, and the Committee tenders its grateful thanks to those Fellows and Publishers who have helped the Library in this way.

THE CHEMICAL SOCIETY

INCOME AND EXPENDITURE ACCOUNTS for the Year ended 31st December, 1954.

		1953		1954		1953		1954	
£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
GENERAL PURPOSES.									
		<i>Income.</i>				<i>Expenditure.</i>			
Separate Subscriptions—		On account of 1954		21,117 4 2		Administration Expenses:		Salaries, Wages, Superannuation, etc.	
20,539	18 0	289	5 5	414	4 2	Office Expenses and Stationery		5,281	2 4
Joint Subscriptions—		On account of 1954		16,161 16 1		Furniture		891	2 11
16,648	17 1	49	16 9	113	9 9	Miscellaneous		272	9 8
On account of 1953 and previous years		37,806 14 2		37,806 14 2		Expenses of Conjoint Chemical Office		405	6 9
37,567	17 3	Add Income Tax recovered on Subscriptions under Covenant		1,304 10 4		Subscriptions		539	16 9
1,292	18 0	Dividends on Investments		39,111 4 6		Expenses of Meetings		7,788	8 6
Donations		41 9 8		1,102 13 5		Expenses of Local Representatives		877	14 4
Miscellaneous Receipts		756 11 6		41 9 8		Travelling Expenses		46	15 0
				756 11 6		Transfers to:		978	13 10
						Publications Account		554	8 4
						Library Account		448	9 11
						Capital Expenditure		2,506	15 6
						Maintenance		2,827	9 5
						Special Reserve Fund:		1,010	17 8
						Publications Reserve		—	—
						Building and Equipment Reserve		—	—
						Investments Reserve		—	—
						Staff Pensions Fund		800	0 0
						Balance, being Excess of Income over Expenditure, carried to Balance Sheet		27,145	2 7
								3,362	6 7
								£41,101	19 1
								£40,293	12 4
								£41,101	19 1

INCOME AND EXPENDITURE ACCOUNTS FOR THE YEAR ENDED 31ST DECEMBER, 1954.

FARADAY LECTURE FUND.

		1953		1954		1955	
		£	s. d.	£	s. d.	£	s. d.
<i>Income.</i>							
Dividends on Investments	...	15	8 8	10	8 8	16	8 8
Balance, being Excess of Expenditure over Income, carried to Balance Sheet	...	16	14 0	—	—	—	—
		£31	3 5	£15	8 8	£16	8 8
<i>Expenditure.</i>							
Honorarium	...	—	—	—	—	—	—
Medal	...	4	13 0	4	13 0	—	—
Miscellaneous	...	—	—	—	—	—	—
Balance, being Excess of Income over Expenditure, carried to Balance Sheet	...	—	—	£31	3 5	—	—
		£15	8 8	£31	3 5	£15	8 8

ROBERT JOHN FLINTOFF TRUST.

		1953		1954		1955	
		£	s. d.	£	s. d.	£	s. d.
<i>Income.</i>							
Dividends on Investments	...	34	13 8	34	13 8	—	—
Balance, being Excess of Expenditure over Income, carried to Balance Sheet	...	—	—	44	16 9	—	—
		£34	13 8	£79	10 5	£44	16 9
<i>Expenditure.</i>							
Honorarium	...	—	—	—	—	—	—
Medal	...	1	14 8	1	14 8	—	—
Miscellaneous	...	32	19 0	32	19 0	—	—
Balance, being Excess of Income over Expenditure, carried to Balance Sheet	...	—	—	£34	13 8	—	—
		£34	13 8	£79	10 5	£44	16 9

EDWARD FRANK HARRISON MEMORIAL TRUST.

		1953		1954		1955	
		£	s. d.	£	s. d.	£	s. d.
<i>Income.</i>							
Dividends on Investments	...	46	16 10	46	16 10	—	—
Balance, being Excess of Expenditure over Income, carried to Balance Sheet	...	—	—	78	10 0	—	—
		£46	16 10	£125	6 10	£78	10 0
<i>Expenditure.</i>							
Prize	...	—	—	—	—	—	—
Plaque	...	24	14 10	24	14 10	—	—
Miscellaneous	...	22	2 0	22	2 0	—	—
Balance, being Excess of Income over Expenditure, carried to Balance Sheet	...	—	—	£46	16 10	—	—
		£46	16 10	£125	6 10	£78	10 0

SCHEDULE OF INVESTMENTS.

GENERAL PURPOSES.

Nominal Details.	Cost or Value when Acquired.		Market Value 31st December, 1954.	
	£	s. d.	£	s. d.
£2,600 14s. 4d. 3½% Conversion Loan, 1961, or after ...	2,044	16 0	2,110	0 0
£2,000 3% Savings Bonds, 1955/65 ...	2,000	4 0	1,880	0 0
£1,250 5% Funding Loan, 1959/69 ...	973	0 0	970	0 0
£1,100 3½% Defence Bonds, 1959/61 ...	1,000	0 0	1,000	0 0
£1,000 3½% Defence Bonds (Conversion Issue) ...	1,000	0 0	1,000	0 0
£1,000 3½% Defence Bonds, 3rd Issue ...	1,000	0 0	1,005	0 0
£1,000 3½% Defence Bonds (Conversion Issue) ...	1,000	0 0	1,005	0 0
£2,589 16s. 8d. 3% British Transport Guaranteed Stock, 1978/88 ...	2,589	16 8	4,154	0 0
£2,589 16s. 8d. 3% British Transport Guaranteed Stock, 1968/78 ...	2,589	16 8	4,154	0 0
£1,000 3½% Ceylon Stock, 1959/64 ...	2,419	0 0	2,419	0 0
£1,000 3½% Agricultural Mortgage Corporation, Ltd., Deb. Stock, 1961/64 ...	2,434	10 8	2,316	0 0
£1,000 3½% Commonwealth of Australia Registered Stock, 1964/66 ...	2,452	10 8	2,445	0 0
£3,000 3½% Commonwealth of Australia Treasury Bonds, 1961/64 ...	2,852	16 7	2,840	0 0
£1,000 4½% Canadian Pacific Railway Perr. Deb. Stock ...	678	8 9	601	0 0
£766 3½% London Trust Co., Ltd., Red. Deb. Stock ...	678	2 9	1,015	4 9
£1,000 4½% Rolls-Royce, Ltd., Red. Deb. Stock, 1974/84 ...	1,007	1 9	1,015	4 9
£825 4% Olympia, Ltd., 1st Mort. Red. Deb. Stock ...	853	3 3	819	0 0
£1,000 5½% Wankie Colliery Co., Ltd., Mort. Deb. Stock ...	1,149	3 9	1,160	0 0
800 Rotary Hoops, Ltd., 6½% Red. Cum. Pref. £1 Shares ...	839	16 0	800	0 0
750 Scottish and Mercantile Investment Co., Ltd., 7½% Cum. Pref. £1 Shares ...	940	0 0	938	0 0
£800 3% British Petroleum Co., Ltd., Cum. First Pref. Stock ...	778	16 6	844	0 0
1,000 5% Bell London & Provincial Props. Ltd., Cum. Pref. £1 Shares ...	884	1 6	900	0 0
1,000 5% J. & N. Phillips & Co., Ltd., Cum. Pref. £1 Shares ...	929	14 0	968	0 0
1,000 5% Geo. Sandeman & Sons, Ltd., Cum. Pref. £1 Shares ...	938	1 6	1,038	0 0
160 Allen & Hanburys, Ltd., Ord. £1 Shares ...	521	6 6	485	0 0
£440 Cable & Wireless (Holding), Ltd., Ord. Stock ...	549	6 6	808	0 0
£50 Commercial Union Assurance Co., Ltd., Stock ...	500	12 6	538	0 0
£300 Goodlass Wall & Lead Industries, Ltd., Ord. Stock ...	496	9 6	878	0 0
£145 Leyland Motors, Ltd., Ord. Stock ...	702	9 2	739	0 0
£180 Shell Transport and Trading Co., Ltd., Ord. Stock ...	655	12 6	1,074	0 0
£320 Peninsular and Oriental Steam Navigation Co., Ltd., Def. Stock ...	504	4 6	976	0 0
£200 Tubo Investment Trust, Ltd., Ord. Stock ...	700	11 6	813	0 0
1,500 Home and Colonial Stores, Ltd., Ord. 6s. 8d. Shares ...	794	9 0	938	0 0
£330 British Insulated Callender's Cables, Ltd., Ord. Stock ...	783	11 6	800	0 0
500 Trust Houses, Ltd., Ord. £1 Shares ...	727	6 3	713	0 0
£400 Charterhouse Investment Trust, Ltd., Ord. Stock ...	727	16 6	730	0 0
600 Consolidated Zinc Corporation, Ltd., Ord. £1 Shares ...	938	13 0	1,313	0 0
£300 Smiths Stamping Works (Coventry), Ltd., Ord. Stock ...	888	13 10	760	0 0
	£38,755	3 11	£39,282	

PUBLICATIONS FUND.

£2,260 19s. 9d. 3½% Conversion Loan, 1961, or after ...	1,666	16 4	2,001	
£1,000 3% Savings Bonds, 1955/65 ...	0	0	1,000	
£2,260 19s. 9d. 3½% Savings Bonds, 1960/70 ...	2,276	1 11	2,171	
£3,176 13s. 4d. 3% British Transport Guaranteed Stock, 1978/88 ...	1,929	1 4	1,904	
£2,000 3% British Electricity Guaranteed Stock, 1968/73 ...	2,002	10 0	1,900	
£1,200 3% Commonwealth of Australia Registered Stock, 1964/66 ...	1,204	0 0	1,146	
£683 12s. 0d. 3% Commonwealth of Australia Registered Stock, 1971/73 ...	1,900	0 0	899	
	£10,978	19 7	£11,021	

SPECIAL RESERVE FUND.

Nominal Details.	Cost or Value when Acquired.		Market Value 31st December, 1954.	
	£	s. d.	£	s. d.
£1,500 3% Savings Bonds, 1955/65 ...	1,489	1 0	1,500	0 0
£1,250 5% Funding Loan, 1959/69 ...	1,217	9 8	1,213	0 0
£1,100 3½% Defence Bonds, 1959/61 ...	1,169	10 8	1,166	0 0
£1,000 3½% Defence Bonds (Conversion Issue) ...	1,282	3 3	1,282	0 0
£1,000 3½% Defence Bonds, 3rd Issue ...	2,472	0 0	2,483	0 0
£2,589 16s. 8d. 3% British Transport Guaranteed Stock, 1978/88 ...	2,492	8 6	2,583	0 0
£2,589 16s. 8d. 3% British Transport Guaranteed Stock, 1968/78 ...	1,438	8 6	1,463	0 0
£1,000 3½% Agricultural Mortgage Corporation, Ltd., Deb. Stock, 1961/64 ...	1,020	0 0	985	0 0
£1,000 3½% Commonwealth of Australia Registered Stock, 1964/66 ...	961	6 3	915	0 0
£1,000 4½% Cable and Wireless (Holding), Ltd., 10 Year Red. Unsec. Stock, 1960 ...	1,015	4 9	985	0 0
£1,000 4½% Nelson Financial Trust, Ltd., Deb. Stock, 1970 ...	981	14 9	1,007	0 0
£1,000 4½% Dominion and General Trust, Ltd., Red. Deb. Stock, 1959/64 ...	987	1 6	965	0 0
£1,000 4½% Huxley Portland Cement Co., Ltd., Unsec. Stock, 1957/62 ...	1,040	2 6	985	0 0
£1,000 5½% Clan Line Steamers, Ltd., Cum. Red. 1st "B" Pref. Stock 1972/74 ...	1,113	1 0	1,125	0 0
	£17,821	12 11	£17,691	

SPECIAL PUBLICATIONS FUND.

£745 9s. 3d. 3½% Conversion Loan, 1961, or after ...	969	0 10	660	
£746 1s. 0d. 3% British Transport Guaranteed Stock, 1978/88 ...	719	18 9	683	
£750 3% British Electricity Guaranteed Stock, 1968/73 ...	760	18 9	713	
£1,000 3½% London County Consolidated Stock, 1968/73 ...	997	1 6	990	
£1,000 4½% Government of the Fed. of Rhodesia and Nyasaland Stock, 1972/74 ...	973	16 1	1,015	
	£4,010	14 11	£4,031	

STAFF PENSIONS FUND.

£119 0s. 1d. 3½% Conversion Loan, 1961, or after ...	92	14 10	106	
£170 3% Savings Bonds, 1955/65 ...	170	0 0	170	
£792 10s. 8d. 3% British Transport Guaranteed Stock, 1978/88 ...	760	8 7	765	
£1,000 3½% Defence Bonds ...	1,000	0 0	1,000	
£750 3½% Defence Bonds (Conversion Issue) ...	745	9 3	760	
£1,500 3% Sheffield Corporation, Red. Deb. Stock, 1967/69 ...	1,442	3 6	1,410	
£1,000 3½% Southern Rhodesia Stock, 1955/65 ...	975	4 0	975	
	£5,176	0 2	£5,196	

TILDEN LECTURE FUND.

£419 4s. 10d. 3% Funding Loan, 1959/69 ...	386	12 10	407	
£792 10s. 8d. 3% British Transport Guaranteed Stock, 1978/88 ...	725	2 0	693	
£86 National Provincial Bank Ltd. "B" Shares £5 each, £1 paid ...	678	18 0	763	
£220 3% Metropolitan Water Board (Kent Water Works) Deb. Stock ...	188	2 0	174	
	£1,978	14 10	£2,037	

SCHEDULE OF INVESTMENTS.

CENTENARY FUND.

Nominal Details.	Cost or Value when Acquired.			Market Value 31st December, 1954.
	£	s	d.	
£2,637 10s. 6d. 3½% Conversion Loan, 1961, or after...	2,500	0	0	2,331
£2,477 13s. 11d. 5% Savings Bonds, 1955/56	2,401	11	0	2,473
£2,500 3% Savings Bonds, 1967/70	2,534	7	6	2,400
£2,700 18s. 7d. 2½% Savings Bonds, 1964/67	2,500	0	0	2,571
£2,273 13s. 0d. 3% British Transport Guaranteed Stock, 1978/88	2,237	7	8	1,993
£2,393 3% British Electricity Guaranteed Stock, 1968/73	2,438	8	9	2,375
£4,933 8s. 11d. 5% Consolidated Stock, 1957, or after...	4,500	0	0	4,761
£2,502 19s. 6d. 3½% Agricultural Mortgage Corporation Ltd., Deb.	2,000	0	0	2,190
£1,900 4, 19s. 6d. 5% New Zealand Stock, 1973/77	2,000	0	0	1,842
£1,719 11s. 2d. 3½% Northern Ireland Stock, 1969/71	1,700	0	0	1,631
£43,500 3½% Commonwealth of Australia Treasury Bonds, 1961/64	2,938	7	6	2,503
	£27,698	3	4	£27,080

CORDAY-MORGAN MEDAL AND PRIZE FUND.

£1,961 8s. 2d. 3½% War Loan, 1952, or after	1,825	14	0	1,703
£635 3s. 10d. 3% British Transport Guaranteed Stock, 1978/88	647	17	0	633
£640 15s. 6d. 4% Consolidated Stock, 1967, or after	690	11	1	618
£774 6s. 3d. 3% British Guiana Government Stock, 1979/80	690	5	4	662
£137 10s. 0d. 3% Federated Malay States Government Stock, 1960/70	120	6	3	121
£137 10s. 0d. 3½% Bournemouth Corporation Stock, 1958/62	135	14	0	135
£800 3½% Herefordshire County Red. Stock, 1954/59	237	19	0	208
£112 Barclays Bank (D. C. & O.), A. Ord. Stock	71	7	0	506
£172 Mitchells & Butlers, Ltd., Ord. Stock	171	16	0	159
£205 Watney Combe Reid & Co., Ltd., Def. Ord. Stock	557	8	0	505
£83 Imperial Tobacco Co. (G.B. & I.) Ltd., Ord. Stock	963	3	0	945
£240 Cardinal Investment Trust, Ltd., Def. Stock	231	0	0	582
£104 Commercial Union Assurance Co., Ltd., Stock	1,014	0	0	1,742
	£1,370	19	7	£8,287

ROBERT JOHN FLINTOFF TRUST.

£523 2s. 2d. 3½% Conversion Loan, 1961, or after	500	0	0	463
£546 19s. 4d. 3% British Transport Guaranteed Stock, 1978/88	500	0	0	478
	£1,000	0	0	£941

EDWARD FRANK HARRISON MEMORIAL TRUST.

£61 15s. 8d. 3½% Conversion Loan, 1961, or after	60	1	6	55
£1,480 10s. 6d. 3% British Transport Guaranteed Stock, 1978/88	1,061	6	0	1,303
	£1,101	7	11	£1,358

CORDAY-MORGAN MEMORIAL FUND.

Nominal Details.	Cost or Value when Acquired.			Market Value 31st December, 1954.
	£	s	d.	
£1,530 2s. 6d. 3½% Conversion Loan, 1961, or after	1,428	4	2	1,554
£1,273 16s. 11d. 5½% War Stock, 1952, or after	1,880	1	0	1,722
£477 1s. 10d. 3% British Electricity Guaranteed Stock, 1968/73	850	17	0	835
£1,082 10s. 11d. 3½% British Gas Guaranteed Stock, 1950/55	804	5	7	820
£413 13s. 7d. 4½% Consolidated Stock, 1957	412	10	0	399
£217 12s. 6d. 3% London County Consolidated Stock, 1962/67	204	7	6	211
£1,035 0s. 7d. 3% Redemption Stock, 1968/96	928	18	0	901
£137 10s. 0d. 4½% Kenya Government Stock, 1961/71	148	16	11	140
£300 3% New Zealand and Government Stock, 1952/65	298	10	0	300
£1,000 4% South Staffordshire Waterworks Red. Pref. Stock, 1971	1,046	10	6	955
£300 3½% Hill Corporation Red. Stock, 1973/75	303	15	0	303
£108 Barclays Bank Ltd., "B" Ord. Stock	277	3	0	267
£309 Barclays Watford Brewery Ltd., Ord. Stock	684	19	0	898
£200 H. & G. Simmonds Ltd., Ord. Stock	824	0	0	802
£160 Imperial Tobacco Co. (G.B. & I.) Ltd., Ord. Stock	500	5	0	472
£108 Thomas Tilling Ltd., Ord. Stock	107	6	6	205
£340 Alliance Trust, Ltd., 4½% Deb. Stock, 1966	344	5	0	332
£60 London & Lancashire Insurance Co., Ltd., Ord. Stock	448	10	0	621
68 Phoenix Assurance Co., Ltd., Ord. £1 Shares	1,088	0	0	1,898
	£12,230	5	10	£12,652

RESEARCH FUND.

£4,177 10s. 1d. 3½% Conversion Loan, 1961, or after	3,625	16	8	3,697
£300 3% Defence Bonds, 4th Issue	300	0	0	300
£1,825 10s. 11d. 3½% British Electricity Guaranteed Stock, 1968/73	1,855	0	0	1,856
£1,500 3½% Savings Bonds, 1955/63	1,515	0	0	1,600
£4,000 3% Savings Bonds, 1960/70	4,015	0	0	3,800
£3,755 2s. 1d. 3% British Transport Guaranteed Stock, 1978/88	3,697	19	5	3,586
£3,719 8s. 2d. 5% British Electricity Guaranteed Stock, 1968/73	3,527	1	2	3,583
£4,000 3% Commonwealth of Australia Bonded Stock, 1964/68	4,014	0	4	3,840
£1,116 7s. 0d. 3% New Zealand Stock, 1973/77	1,080	7	4	1,044
	£23,923	4	7	£23,765

SPECIAL LECTURES FUND.

£1,660 17s. 3d. 3% British Transport Guaranteed Stock, 1978/88	£1,615	5	0	£1,461
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FARADAY LECTURE FUND.

£473 8s. 9d. 3½% Conversion Loan, 1961, or after	£469	4	0	£419
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