## ONE HUNDRED AND NINTH ANNUAL GENERAL MEETING.

The One Hundred and Ninth Annual General Meeting of The Chemical Society was held in the Chemistry Department, King's Buildings, West Mains Road, Edinburgh, at 12 noon on Wednesday, 29th March, 1950. The President, Sir Ian Heilbron, was in the Chair.

The notice convening the Meeting was read.
The Report of Council for 1949 which had been circulated to Fellows attending the Meeting was presented by Professor D. H. Hey who referred to the continued growth of the Society during the past year. Although this was satisfactory, he warned that the "turnover" of Fellows was higher than in the past and it was important to lose no opportunity of recruiting new Fellows for the Society.

He referred also to the increase in the size of the Journal and to the satisfactory progress in reducing the delays of publication. By the purchase of back numbers, and by arrangements for reprinting the early volumes of the Journal, the Society would shortly be able to supply almost a complete set of back issues of the Journal from 1848.

In presenting the Accounts for 1949, the Treasurer stated that the expenditure for the year exceeded income by over $£ 9000$. This was almost entirely due to the growing expenditure on publications. Had not the Council taken steps during the year to increase revenue, the deficit would have been considerably larger. The Special Reserve Fund would meet the loss for 1949 ; but that part of the Fund allocated for Publications was now exhausted and, if expenditure was to continue at the present level and publication was not to be curtailed, the Society must increase its income. An appeal to Industry had been launched by the Chemical Council and the Treasurer hoped that support would be forthcoming on a scale sufficient to balance the increased expenditure.

Dr. Neil Campbell proposed the adoption of the Report of Council and the Accounts, and his motion was seconded by Dr. M. Ritchie and carried unanimously.

The following elections to vacancies on Council were announced :
President:
Professor E. K. Rideal.
Vice-President :
Professor R. P. Linstead.
Elected Ordinary Members of Council :

Constituency I:
Dr. J. S. Anderson.
Dr. L. N. Owen.

Constituency IV :
Professor F. E. King.
Professor L. Hunter.

On the motion of Dr. Duncan Taylor, seconded by Dr. G. Aspinall, Messrs. W. B. Keen \& Co. were re-appointed Auditors to the Society for 1950.

At the conclusion of the Meeting, a vote of thanks to the Officers and Council, Local Representatives, and others who had served the Society during the year, was proposed by Professor E. L. Hirst, seconded by Dr. T. R. Bolam, and carried with acclamation.

The formal induction of Professor E. K. Rideal as President of the Society took place at the Anniversary Dinner of the Society held on Thursday, March 30th, at the North. British Station Hotel, Edinburgh.

## REPORT OF GOUNGIL FOR 1949.

## I. FELLOWSHIP.

1. Honovary Fellowship. The following were elected Honorary Fellows of the Society in 1949 :

Dr. C. S. Hudson<br>Professor H. R. Kruyt

Professor H. S. Taylor<br>Professor A. W. K. Tiselius

The number of Honorary Fellows is now 29.
2. Fellowship Statistics. The Fellowship showed a net increase of 322 during 1949. At December 31st, there were 8195 names on the Register. 675 New Fellows were elected and 26 were reinstated. The Society has lost 60 Fellows by death, 210 by resignation, and 109 names were removed from the register. Of the total Fellowship, 4615 participated in the Joint Subscription Scheme sponsored by the Chemical Council.
3. Joint Student Facilities. During 1949, joint student facilities of the Chemical Society and the Society of Chemical Industry were granted by the Chemical Council to 17 persons.
4. Honours. The congratulations of the Society were conveyed to the following whose names appeared in the New Year and Birthday Honours Lists :

G.C.B.<br>Sir Henry Tizard<br>O.M.<br>Sir Robert Robinson<br>Knight Bachelor<br>Dr. W. G. Ogg<br>Dr. J. L. Simonsen<br>C.B.E.<br>Dr. J. R. Nicholls<br>Professor W. Wardlaw

The Council has also congratulated the following to whom awards have been made by the Royal Society :

| Professor G. C. Hevesy, Honorary Fellow | Copley Medal |
| :---: | :---: |
| Professor R. A. Peters | Royal Medal |
| Professor A. R. Todd | Davy Medal |

5. Fellows who have completed 70, 60, and 50 years of Fellowship. The congratulations of the Society have been conveyed personally by the President to Mr. William Stone, who completed 70 years of Fellowship on April 17th, 1949. Announcements have also been made at Ordinary Scientific Meetings, and have been published in the Proceedings, of the congratulations of the Society that have been sent to Fellows who during the year completed 60 and 50 years of Fellowship.
6. A list of Honorary Fellows and Fellows corrected to December 10th, 1948, was issued during the year, and copies* are available from the General Secretary.
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## II. PUBLICATIONS.

1. Journal. During the year 739 scientific communications were received, 13 were declined, and 6 withdrawn. The Journal contained 888 items, made up as follows (all the figures quoted in this Report include those for the two Supplementary Issues) :


The Scientific Communications from overseas (141, including 9 jointly with British laboratories) increased both in total number and in proportion; contributions were received from : Australia (47), Austria (1), Canada (5), Egypt (25), France (6), Germany (1), Hungary (2), India (3), Irish Republic (6), Israel (4), New Zealand (15), Poland (2), South Africa (10), Spain (1), Sweden (3), and U.S.A. (10). Contributions from industrial laboratories totalled 101 (including 14 jointly with academic institutions), and those from industrial research organisations and Government laboratories totalled 42 (including 10 jointly with academic institutions).

The following are some figures relative to the growth of publication :

|  | 1938. | 1943. | 1947. | 1948. | 1949. |
| :--- | :---: | :--- | :---: | :---: | :---: |
| Scientific communications received | 507 | 208 | 523 | 548 | 739 |
| Published $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ | 431 | 192 | 375 | 511 | 876 |

Of the 739 papers received during the whole of 1949,426 were submitted during the last six months of the year. If this rate of submission continues, the Journal for 1950 will be about as large as that for 1949, although a considerable part of the 1949 Journal was devoted to overhauling arrears of publication.

The arrangements made in 1948 for an increased rate of publication in 1949 functioned satisfactorily; papers received in January 1949 began appearing in the June Journal, and by the end of the year there were no arrears of publication. In the December Journal the average time between receipt of a manuscript and its publication was about four to five months (plus about three weeks if the paper contained illustrations), and of this time two to three weeks were absorbed in the preparation of preprints. It is hoped that the time between the receipt of a paper and its publication can be further reduced by a few weeks as the arrangements for publication of these larger monthly issues are perfected; but no very great reduction can be effected under present conditions.

The progress in 1949 was possible only through the unfailing co-operation of the Society's printers, Messrs. Richard Clay \& Co., Ltd.
2. Annual Reports and Quarterly Reviews. The Annual Reports for 1948 were distributed during September. It is hoped to distribute the Annual Reports for 1949 during July 1950.

Volume I (1947) of Quarterly Reviews was reprinted and became available during the year.

## III. MEETINGS.

1. Scientific Meetings. The Society held 14 Meetings in London during 1949. These included 6 Lectures and 3 organised Discussions. At the other 5 Meetings, 12 papers were read and discussed.

109 Meetings arranged by Local Representatives on behalf of the Society, or in conjunction with other societies, were held outside London. In addition, Fellows were able to attend, under arrangements made locally, a number of meetings organised by other bodies.

Official Scientific Meetings of the Society were held at Newcastle on January 28th and Exeter on May 20th.

Details of all Meetings are given in Appendix A.
2. Anniversary Meetings. The 108th Annual General Meeting, The Presidential Address, and the Anniversary Dinner were held in London on March 31st. In conjunction with these meetings, a Discussion on "The Chemistry of the Heavy Elements," held at Oxford on March 28th-30th, and a Symposium on "The Use of Radioactive Tracers in Chemistry," held in London on April lst, were organised by the Society and the Chemistry Division of the Atomic Energy Research Establishment.

A Report of the Annual General Meeting was published in the Journal for May. The papers presented at the meetings at Oxford and London were published in a Supplementary Issue of the Journal.
3. Centenary Fund. The income arising from the Centenary Fund has enabled the Society to invite a number of chemists from overseas to lecture and to take part in discussion meetings.

## IV. LIBRARY.

The Annual Report of the Joint Library Committee for 1949 appears as Appendix B to this Report.

## v. OTHER ACTIVITIES.

1. Corday-Morgan Medal. Rules governing the award of the Medal and Prize were approved by Council and published in the Proceedings for April.

The medal is to be awarded annually to the British Chemist, under thirty-six years of age who has, during the year for which the award is made, published the most meritorious contribution to experimental chemistry.

The award consists of a silver medal, designed by Mr. Percy Metcalfe, C.V.O., and a cash prize which will, it is expected, amount to not less than $£ 150$. Consideration will be given, at the end of 1950 , to an award in respect of the year 1949 .
2. Flintoff Medal and Prize. As stated elsewhere in the Report the bequest of the late Mr. R. J. Flintoff has been received and has been invested. The income will be accumulated until sufficient funds are available to institute the award.
3. Copyright. The Society has subscribed to a declaration, drawn up by the Royal Society and designed to make it easier for Scientists to obtain a single copy, for research purposes, of material which has appeared in the Society's Publications.
4. Early Volumes of the Journal. The Society has entered into an agreement for Volumes 1-23 of the Journal, 1848-1870, which are out of print, to be reprinted and published by Messrs. Butterworths (Scientific Publications), Ltd. The new edition is expected to be available in the autumn of 1950 .
5. Research Grants. Grants from the Research Fund amounting to $£ 775$ 2s. have been authorised for payment to 37 applicants.
6. The Chemical Council and the Bureau of Abstracts. The Reports for the year 1948 of the Chemical Council and of the Bureau of Abstracts have now been issued, and copies are available from the General Secretary.
7. Accommodation. Acute shortage of accommodation has continued to present serious difficulties to the Society. However, a new office has been formed, by conversion of part of the basement, and this has enabled the Society to restore to other bodies the privilege of holding scientific meetings in the Society's Meeting Room. Improved cloakroom facilities and a new central-heating system have been installed in the Society's apartments.

## VI. ADMINISTRATION.

1. Council. At the Annual General Meeting on March 31st, 1949, the following were declared elected :

Vice-Presidents
Professor J. W. Cook, Professor W. Wardlaw.
Honorary Secretary
Professor H. Burton.
Ordinary Members of Council
Professor C. E. H. Bawn, Dr. F. S. Dainton, Dr. E. G. V. Percival, Dr. R. Spence, Professor M. Stacey, Dr. A. I. Vogel, Mr. J. D. Rose, Dr. J. Walker, Dr. W. A. Waters.
2. Local Representatives. The Council received with regret the resignation of a number of Local Representatives, and the following new appointments were made:

Edinburgh .............. Dr. Neil Campbell in place of Dr. E. G. V. Percival.
Glasgow..................... Dr. J. C. Speakman in place of Dr. J. D. Loudon.
Irish Republic ............ Dr. V. C. Barry in place of Professor T. S. Wheeler.
Manchester ............... Dr. M. A. T. Rogers in place of Dr. J. C. Withers.
Dr. D. O. Jordan has resumed his duties as Local Representative for Nottingham after twelve months' absence. The Council has also appointed Dr. M. U. S. Sultanbawa and Dr. M. I. D. Chughtai as the Society's first Local Representatives in the Dominions of Ceylon and Pakistan respectively.
3. Editor. The Council appointed Dr. R. S. Cahn as Editor of the Society's Publications as from March lst, 1949.

## VII. FINANCE.

1. Investments. The following alterations in the Society's Investments have been made during the year:
$£ 259$ 14s. 9d. standing to the credit of Life Composition Fees in the General Purposes Account, invested in 3\% British Transport Guaranteed Stock 1978/88.
$£ 1,000$, the W. H. Perkin Bequest, on the Publications Fund invested in 3\% Southern Rhodesia Stock, 1971/73.
$£ 150$ on the Special Lectures Fund invested in 3\% British Transport Guaranteed Stock, 1978/88.
$£ 70$ on the Faraday Lecture Fund invested in $3 \frac{1}{2}$ \% Conversion Stock, 1961, by the transfer of stock from the Staff Pensions Fund.
$£ 4,500$ on the Centenary Fund invested in $3 \%$ New Zealand Stock, 1973/77, and 21 $\%$ Savings Bonds, 1964/67.
$£ 1,000$ on the Robert John Flintoff Trust invested in 3\% British Transport Guaranteed Stock, 1978/88, and $3 \frac{1}{2} \%$ Conversion Stock, 1961.
The following stocks on Special Reserve Fund were sold in order to provide funds for transfer to the General Purposes Account for meeting the cost of publications :
$£^{2}, 4002 \frac{1}{2} \%$ National War Bonds, 1949/51.
$£ 3,7002 \frac{1}{2} \%$ National War Bonds, 1952/54.
and $£ 5694 s .2 d .3 \frac{1}{2} \%$ Conversion Stock on Staff Pensions Fund (including the stock sold to the Faraday Lecture Fund) was realised.
2. Contributions. The Council gratefully acknowledge the following contributions towards the cost of the Society's publications :
$£ 900$ as a Supplementary grant for 1948 and $£ 2,000$ for 1949 from the Government Scientific Publications Grant-in-Aid, distributed by the Royal Society.
$£ 1,3336 \mathrm{~s} .8 \mathrm{~d}$. from the Chemical Council, representing part of the income received during the War and reserved for the publication of scientific papers accumulated during that period, and $£ 1,000$ as a grant for 1949 .
A grant from the Ministry of Supply of half the cost of publication of the Supplementary issue of the Journal containing the papers discussed at the Symposium held at Oxford and in London in conjunction with the Anniversary Meetings.

The Council also gratefully acknowledge donations from Dr. A. F. Campbell, Dr. D. Holmes, Pharmaceutical and Allied Chemicals Disposals, Ltd., and others, as well as contributions received for the Centenary Fund under deeds of covenant.
3. Library. The Council records its thanks for a contribution of $£ 200$ received through the Royal Society from the Government Scientific Publications Grant-in-Aid, towards the cost of capital expenditure on the Library, and for the following contributions, on a membership basis, received through the Chemical Council towards the maintenance costs of the Library :

|  | $\ddagger$ | $s$. | d. |
| :---: | :---: | :---: | :---: |
| The Royal Institute of Chemistry | 1188 | 19 | 4 |
| The Society of Chemical Industry | 638 | 1 | 0 |
| The Faraday Society | 132 | 2 | 2 |
| The Society of Public Analysts and | 101 | 3 | 9 |
| The Biochemical Society | 132 | 2 | 2 |

The Chemical Society's share of the maintenance costs of the Library amounted to $£ 6187 \mathrm{~s}$. 6d., and in addition the Society has contributed over $£ 900$ towards the purchase of new books and other Capital expenditure on the Library.

Contributions towards the maintenance expenses have also been received from other sources as follows :

4. Increased Prices of Publications. The increasing cost of producing the Society's publications has compelled the Council to increase during the year, to $£ 6$ per annum, the price at which the Journal is sold to non-Fellows; the Annual Reports on the Progress of Chemistry was increased to $£ 15 \mathrm{~s} .0 \mathrm{~d}$. per volume, and the Quarterly Reviews to $£ 110 \mathrm{~s} .0 \mathrm{~d}$. per annum.

The Council also found it necessary to ask Fellows to bear a proportion of the increased costs, and the prices of the publications on the schedule were increased as from January lst, 1950.
5. Advertisements. During the year, Messrs. Walter Judd, Ltd., were appointed the Society's agents for procuring advertisements for the Society's publications.

## VIII. REPRESENTATION ON OTHER BODIES.

The Society's representatives at December 31st, 1949 were as follows :

## 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 :
Sir Norman Haworth.
British National Committee for Chemistry :
Sir Norman Haworth, Sir Cyril Hinshelwood, Professor M. Stacey. British National Committee for Crystallography:

Dr. G. M. Bennett.

## British Standards Institution. Technical Committees:

M/1. Units and Technical Data : Professor C. W. Davies.
M/4. Letter Symbols : Professor C. W. Davies.
C/17. Viscosity : Dr. A. E. Dunstan.
C/18. Chemical Symbols and Abbreviations: Professor C. W. Davies.
C/34. Standardisation of pH Scale: Professor H. T. S. Britton.
CHE/36. Chemicals for Electroplating: Dr. U. R. Evans.
DAC/-. Standards for Dairying Chemistry : Mr. Eric Voelker.
LBC/-. Scientific Glassware and Related Laboratory Apparatus: Dr. G. R. Davies.
LBC/2/l. 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. H. D. K. Drew, Professor H. B: Nisbet.
LGE/19. Colour Terminology: Dr. F. M. Hamer.
PCC/l. Nomenclature for Insecticides: Dr. R. L. Wain.

## Bureau of Abstracts.

Directors and Members : Dr. G. M. Bennett, Mr. F. P. Dunn, Dr. E. B. Hughes, Dr. E. H. Rodd.
Members : Mr. R. P. Bell, Professor H. V. A. Briscoe, Dr. A. H. Cook, Professor W. Wardlaw.

## Chemical Council:

The Treasurer, Sir Ian Heilbron, Professor D. H. Hey, Dr. R. P. Linstead.
City and Guilds of London Institute :
The President.
Faraday Society. Colloid and Biophysics Committee :
Dr. P. Johnson.

## Joint Library Committee :

Dr. A. H. Cook, Dr. C. H. Desch, Mr. M. B. Donald, Dr. F. Fairbrother, Dr. P. Haas, Dr. T. A. Henry, Dr. J. R. I. Hepburn, Professor D. H. Hey, Professor E. D. Hughes, Dr. Harold King, Professor G. A. R. Kon, Dr. H. N. Rydon, Dr. F. C. Tompkins, Professor E. E. Turner.

Lawes Agricultural Trust:
Committee of Management: Sir Norman Haworth.
Parliamentary and Scientific Committee :
The President, Professor D. H. Hey.
Regional Council for Further Education for the South-West :
Chemistry and Chemical Technology Committee : Professor W. E. Garner.
Royal Society.
Joint Standing Committee for Symbols and Abbreviations: Mr. R. P. Bell, Professor C. W. Davies.

Scientific Societies Accommodation Committee :
The President.
Yorkshire Council for Further Education :
Advisory Committee for Chemistry in South and East Yorkshire: Professor R. D. Haworth, Professor Brynmor Jones.

## IX, ACKNOWLEDGMENTS.

The Council expresses its cordial thanks to the many Fellows who have served the Society in various ways during the year, including Members of Committees, Referees of papers submitted for publication, Contributors to the Annual Reports and Quarterly Reviews, Local Representatives, and those who have given Lectures and opened Discussions.

## APPENDIX A.

## MEETINGS HELD DURING 1949.

## IN LONDON.

Unless otherwise stated all meetings were held in the Rooms of the Society at Burlington House.
January 20th, at the Royal Institution, Tilden Lecture, " Three- and Four-membered Heterocyclic Rings '", by Professor F. E. King; February 3rd, Johannes Nicolaus Bronsted Memorial Lecture, by Mr. R. P. Bell; February 17th, at Imperial College of Science and Technology, Centenary Lecture, " Recent Developments in the Chemistry of Macrocyclic Compounds", by Professor Dr. V. Prelog; March 3rd, Meeting for reading papers; March 17th, Discussion, "Aspects of Heterogeneous Catalysis", arranged by Dr. R. Holroyd. Part I, "Theoretical Basis ", by Mr. D. A. Dowden; Part II, " Hydrogenation by Binary Alloys", by Dr. P. W. Reynolds; April lst, at the Institution of Civil Engineers, Discussion, "The Use of Radioactive Tracers in Chemistry "; April 28th, Meeting for reading papers; May 12th, at the Royal Institution, Centenary Lecture, "The Chemistry and Biochemistry of some Mammalian Secretions and Excretions", by Dr. E. Lederer; May 26th, Meeting for reading papers; October 20th, at Imperial College of Science and Technology, Tilden Lecture, "Acetylene and Acetylenic Compounds in Organic Synthesis", by Professor E. R. H. Jones; November 3rd, Meeting for reading papers; November 17th, at the Institution of Mechanical Engineers, Centenary Lecture, " Radiationinduced Polymerisation '", by Dr. M. Magat; November 30th, at the Royal Institution, Symposium, " Fluorine Chemistry ", arranged by Professor H. J. Emeléus; December 15th, Meeting for reading papers.

## OUTSIDE LONDON.

Aberdeen. Joint meetings with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry, in the Chemistry Department, Marischal College; January 14th, Lecture, "Sulphide Precipitation and the Law of Mass Action", by Mr. R. Belcher; January 27th, Lecture, "Application of Dyestuffs to Materials other than Textiles", by Mr. J. G. Grundy; February 25th, Lecture, " Some Factors influencing the Strengths of Acids and Bases", by Professor D. H. Everett; March 10th, Lecture, "Recent Advances in Seaweed Technology", by Dr. F. N. Woodward; October 27th, Lecture, " Peat", by Dr. G. K. Fraser; November llth, Tilden Lecture, " Acetylene and Acetylenic Compounds in Organic Synthesis "', by Professor E. R. H. Jones; December 2nd, Lecture, " Some Aspects of the Work at Rothamsted ", by Sir William G. Ogg; December 12th, Lecture, " Some Recent Advances in the Chemistry of Fluorine Compounds", by Professor H. J. Emeléus.

Birmingham. At the University (joint meetings with the University Chemical Society) : March 18th, Lecture, " Some Aspects of Stereochemistry ", by Dr. F. G. Mann; October 21st, Lecture, "The Oxidation of Aldehydes in Solution", by Professor C. E. H. Bawn; December 2nd, Lecture, " Chemical Constitution and Biological Activity", by Dr. W. A. Sexton.

Bristol. At the University (joint meetings with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry) : February 10th, Lecture, "The

Stability of Emulsions", by Dr. A. S. C. Lawrence; November 3rd, Lecture, "What is a Chemical Bond? ", by Professor C. A. Coulson.

Edinburgh. January 13th, at the North British Station Hotel (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, "Amphipathic Behaviour in Colloid Systems ", by Dr. T. R. Bolam; February 8th, at the University (joint meeting with the local sections of the Royal Institute of Chemistry, the Society of Chemical Industry and the University Chemical Society), Lecture, "Some Recent Advances in the Chemistry of Natural Products", by Professor R. D. Haworth; at the North British Station Hotel (joint meetings with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry): February 24th, Lecture, "Analytical Chemistry, Chemical Analysis, and the Analyst", by Mr. R. C. Chirnside; March 17th, Lecture, " Recent Trends in the Industrial Utilisation of Agricultural Products in North America ", by Dr. F. N. Woodward; October 20th, Lecture, "The Cow-Mankind's Benefactress", by Mr. E. B. Anderson; November 17th, Lecture, " Radical Chemistry applied to Problems in the Hydrocarbon, Drying Oil, and Rubber Fields", by Dr. E. H. Farmer ; December 8th, at the Y.M.C.A. Hall (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Scientific Film display.

Exeter. At Washington Singer Laboratories: May 6th and 7th (joint meetings with British Rheologists' Club), Discussion, "Suspensions and Sedimentation"; May 20th, Official Meeting of the Society and Lecture, " A New Approach to the Synthesis of Azoles and Purines ", by Sir Ian Heilbron; October 14th (joint meeting with University College Scientific Society), Lecture, "Diffraction of Neutrons by Crystals", by Dr. Kathleen Lonsdale; November 25th (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, "Corrosion Inhibitors", by Dr. U. R. Evans; December 2nd (joint meeting with University College Scientific Society), Lecture, " Catalysis and the Surface Levels of Copper Oxide ", by Professor W. E. Garner.

Glasgow. February 21st, at the Royal Technical College, Annual General Meeting of the Local Section and Centenary Lecture, " Recent Developments in the Chemistry of Macrocyclic Compounds", by Professor V. Prelog; at the University: March 11th, Lecture, " The Head-to-tail Isoprene Rule and its Limitations in Terpene Chemistry", by Professor G. R. Clemo; October 28th (joint meeting with the Alchemists' Club and the Andersonian Chemical Society), Lecture, " The Art of making Sulphate of Ammonia ", by Dr. M. P. Applebey; November 25th, Lecture, " Modern Theories of Chemical Valency ", by Sir John Lennard-Jones.

Hull. At University College : February 24th (joint meeting with the local section of the Royal Institute of Chemistry and University College Scientific Society), Lecture, " The Nature of Scientific Convictions ", by Professor M. Polanyi; (joint meetings with University College Scientific Society) : April 28th, Lecture, "Some Recent Developments in the Chemistry of Natural Products", by Professor R. D. Haworth; October 20th, Lecture, "The Mechanism of Drug Action", by Professor A. R. Todd; November 10th, Lecture, " Surface Films ", by Professor N. K. Adam.

Irish Republic. At University College, Dublin (joint meetings with University College Chemical Society and the Werner Society) : February 28th, Lecture, "Researches on the Chemistry of the Algæ", by Professor T. Dillon; March 7th, Lecture, "The Chemistry of Reductone and its Bearing on Sulphanilamide Action", by Professor W. Cocker; at Trinity College, Dublin, March 14th, Lecture, "The Development of the Periodic Table", by Professor T. S. Wheeler; May 6th (joint meeting with the Werner Society), Lecture, "Recent Progress in the Chemistry of Pectin and Hemicelluloses", by Professor E. L. Hirst; May 16th, Centenary Lecture, " The Chemistry and Biochemistry of some Mammalian Secretions and Excretions", by Dr. E. Lederer; May 27th (joint meeting with the Werner Society), Lecture, " A Chapter in Inorganic Stereochemistry ", by Professor W. Wardlaw; October 21st (joint meeting with the Werner Society), Lecture, "Methods of Biological Assay "', by Mr. A. L. Bacharach; November 2nd, at University College, Dublin, Lecture, " Some Biologically Active Phenazine Derivatives", by Mr. J. G. Belton ; November 25th, at Trinity College, Dublin (joint meeting with the Werner Society),

Lecture, "The Head-to-tail Isoprene Rule and its bearing on Terpene Chemistry", by Professor G. R. Clemo.

Leeds. At the University : March 15th (joint meeting with the University Chemical Society), Debate followed by Lecture, "Structural Relationships amongst the Polysaccharides", by Professor E. L. Hirst; May 20th, Centenary Lecture, "The Chemistry and Biochemistry of Some Mammalian Secretions and Excretions ", by Dr. E. Lederer.

Liverpool. At the University: February 10th, Lecture, " Recent Advances in the Physical Chemistry of High Polymers", by Dr. G. Gee; February 24th, Centenary Lecture, "Some Recent Advances in the Chemistry of Macrocyclic Compounds", by Professor Dr. V. Prelog; October 27th, Lecture, "Editing for the Chemical Society", by Dr. R. S. Cahn; November 6th, Centenary Lecture, " Radiation-induced Polymerisation", by Dr. M. Magat; December 15th, Lecture, " The Biological Oxidation of certain Aromatic Compounds with Special Reference to the Bacterial Cleavage of the Benzene Ring '", by Dr. W. C. Evans.

Manchester. January 7th, at the Engineer's Club (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, " Production of Acetylene from Hydrocarbons", by Dr. H. Steiner; February 22nd, at the University, Centenary Lecture, " Recent Developments in the Chemistry of Macrocyclic Compounds", by Professor Dr. V. Prelog; February 24th, at the Engineers' Club (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, " Some Reicent Developments in Inorganic Chromatography ", by Dr. R. P. Linstead; March 10th, at the University, Meeting for reading papers; March 24th, at the Engineers' Club (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, "The Chemistry of the Deoxy-sugars ", by Professor M. Stacey; October 20th, at the University, Meeting for reading papers; November 9th, at the University (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Symposium, "Some Chemical Aspects of Atomic Energy"; December 2nd, at the Gas Show Rooms (joint meeting with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Lecture, " Some Studies of Oxidation-Reduction Reactions", by Professor M. G. Evans.

Newcastle and Durham. At King's College, Newcastle-on-Tyne: January 14th, Bedson Club Lecture, " Chemistry and Atomic Energy ", by Dr. R. Spence; January 28th, Official Meeting of the Society and Tilden Lecture, "Three- and Four-membered Heterocyclic Rings", by Professor F. E. King; February llth, Bedson Club Lecture, " Partition Chromatography ", by Dr. A. J. Martin; March 4th, Meeting for reading papers; May 13th, Bedson Club Lecture, " The Kinetics of Oxidation Reactions in the Gaseous Phase ", by Sir Cyril Hinshelwood; May 19th, Centenary Lecture, " The Chemistry and Biochemistry of Some Mammalian Secretions and Excretions", by Dr. E. Lederer; November 25th, Meeting for reading papers. Fellows were invited to all meetings of the Bedson Club as well as those organised by other bodies.

Northern Ireland. At Belfast (joint meetings with the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry): January 2lst, Lecture, "The Flax Wet Spinning Frame as a Source of Catalytic Damage in Bleaching", by Dr. W. Honneyman; February 9th, Lecture, " Some Problems of the Sensitiveness of Explosives", by Professor A. R. Ubbelohde; March 2nd, Lecture, "The Future of Synthetic Detergents in Relation to the Petroleum Chemical Industry ", by Mr. A. K. Simcox; May 10th (joint meeting with the Microchemical Group of the Society of Public Analysts and the local sections of the Royal Institute of Chemistry and the Society of Chemical Industry), Meeting for reading of papers; May 17th, Centenary Lecture, "The Chemistry and Biochemistry of Some Mammalian Secretions and Excretions", by Dr. E. Lederer.

North Wales. February 17th, at University College of North Wales, Bangor (joint meeting with the University College of North Wales and the University of Liverpool Chemical Societies), Lecture, "Corrosion: The Study of Surface Reactions on Metals", by Dr. W. H. J. Vernon; (joint meetings with University College of North Wales Chemical Society) : March 3rd, at the Edward Davies Chemical Laboratories, Aberystwyth, Lecture,
"The Liquid State", by Dr. A. E. Moelwyn-Hughes; at University College of North Wales: May 5th, Lecture, " Problems in the Chemistry of the Pectin and Hemicelluloses ", by Professor E. L. Hirst; November 24th, Lecture, " A New Type of Aromatic Compound "', by Professor W. Baker.

Nottingham. At the University (joint meetings with the University Chemical Society) : January 27th, Lecture, " Some Aspects of Structural Inorganic Chemistry", by Dr. A. F. Wells; February 24th, Lecture, "The Shape of the Chemical Bond", by Professor C. A. Coulson; March 10th, Lecture, " Some Metabolic Products of Moulds", by Professor A. Robertson; October 20th, Lecture, " The Scattering of Light by Solutions", by Dr. E. J. Bowen; November 10th, Lecture, " Organic Compounds of Fluorine", by Professor M. Stacey; December lst, Meeting for reading papers.

Oxford. Fellows were invited to the following Alembic Club Lectures held at the Physical Chemistry Laboratory: January 24th, Lecture, " Some Remarks on the Periodic Table ", by Professor N. V. Sidgwick; February 7th, Lecture, " Localised and Non-localised Bonds ", by Professor C. A. Coulson; February 28th (joint meeting with the local section of the Royal Institute of Chemistry), Lecture, " Research and Productivity in Industry," by Mr. C. S. Robinson; May 9th, Lecture, " $\pi$-Electrons in Organic Chemistry ", by Dr. M. J. S. Dewar; May 17th, Lecture, "The Liquid State", by Dr. E. A. MoelwynHughes; October 17th, Lecture, "Compounds of the Inert Gases", by Mr. H. M. Powell; October 31st, Lecture, "Micro-wave Spectroscopy", by Professor E. Bright Wilson; November 21st, Lecture, "Synthesis of Nucleotides", by Professor A. R. Todd.

St. Andrews and Dundee. February 10th, at University College, Dundee [joint meeting with the local sections of the Royal Institute of Chemistry, the Society of Chemical Industry and in conjunction with the British Association (Dundee) Trust], Lecture, " Soil Fertility ", by Dr. W. G. Ogg; February 25th, at United College, St. Andrews (joint meeting with the local section of the Royal Institute of Chemistry and the University Chemical Society), Lecture, "Free Radicals and Hydrocarbon Chemistry", by Professor C. E. H. Bawn ; April 7th, at University College, Dundee, Lecture, " Some Recent Advances in Surface Chemistry", by Dr. A. E. Alexander; April 29th, at United College, St. Andrews, Lecture, " Recent Developments in the Chemistry of Glutamic Acid and its Compounds", by Professor F. E. King; at University College, Dundee: October 21st, Lecture, "Chemical Reactions induced by Nuclear Radiations "', by Dr. F. S. Dainton; October 27th, Lecture, "The Chemistry of Metallic Oxides ", by Dr. J. S. Anderson.

Sheffield. At the University (joint meetings with the University Chemical Society) : February 17th, Lecture, "Hydrogen Peroxide as an Ionising Solvent", by Professor W. F. K. Wynne-Jones; March 3rd, Lecture, " The Chemistry of Colchicine", by Professor J. W. Cook; November 3rd, Lecture, " Some Aspects of the Organic Chemistry of Fluorine", by Dr. C. W. Suckling; December lst, Lecture, " Some Oxidations involving Free Radicals ", by Dr. W. A. Waters.

Southampton. January 28th, at University College (joint meeting with the University College Chemical Society), Lecture, " Some Aspects of Recent Work at the Chemical Research Laboratory, Teddington ", by Dr. R. P. Linstead; February 2nd, at the Municipal College, Portsmouth (joint meeting with the Mid-Southern Counties Section of the Royal Institute of Chemistry, the London Section of the Society of Chemical Industry and the Portsmouth and District Chemical Society), Lecture, "Food Science in Evolution ", by Dr. L. H. Lampitt ; at University College: May 6th (joint meeting with the University College Chemical Society), Lecture, "Some Aspects of Aromatic Substitution", by Professor Brynmor Jones; October 21st (joint meeting with the Mid-Southern Counties Section of the Royal Institute of Chemistry and the University College Chemical Society), Lecture, " Medical Aspects of Radiation Chemistry", by Dr. Edson; November 25th (joint meeting with the University College Chemical Society), Lecture, " Macro-molecular Studies with the Electron-microscope", by Professor W. T. Astbury.

South Wales. At University College, Swansea : January 21st, Lecture, " The Oxidation of Phenols "', by Professor R. D. Haworth; (joint meetings with University College of Swansea Students' Chemical Society) : February 3rd, Lecture, "The Friction and

Lubrication of Metal Surfaces", by Dr. F. B. Bowden; March llth, Lecture, "The Function of Sulphuric Acid in Aromatic Nitration ", by Dr. G. M. Bennett; October 27th, at University College, Cardiff, Lecture, " Aromatic Nitration ", by Professor C. K. Ingold; at University College, Swansea : October 28th (joint meeting with the local section of the Royal Institute of Chemistry and University College of Swansea Students' Chemical Society), Lecture, "Aromatic Nitration", by Professor C. K. Ingold; November 18th (joint meeting with University College of Swansea Students' Chemical Society), Lecture, "The Formation and the Reactions of Free Radicals in Solution", by Professor M. G. Evans; at University College, Cardiff: November 30th, Lecture, " Some Recent Advances in the Physical Chemistry of High Polymers ", by Dr. G. Gee.

## APPENDIX B.

## ANNUAL REPORT OF THE JOINT LIBRARY COMMITTEE FOR THE YEAR 1949.

Problems arising from war-time activities, and from re-adjustments in the chemical industry immediately after the war, were reflected in the abnormal increase in the number of readers using the Library and in the number of books borrowed. This phase having passed, it is not surprising that there were decreases in the number of attendances and of books borrowed during the year 1949. The more prolonged use made of the Library on the average by individual readers, however, together with the more complex nature of the enquiries received, suggest that the Library is utilised for problems of a more fundamental character than ever. A substantial increase in the number of books issued by post makes it clear that the value of the Library is becoming more fully appreciated in the provinces.

The photostat service is still meeting a real need; during the year, the number of printed pages copied was 5018, an increase of 413 on the previous year. There were 1985 telephone enquiries, an increase of 221 over the figures for 1948. The number of books added to the Library was 319 , of which 71 were presented. There were 573 volumes of periodicals added and 224 pamphlets. The total number of volumes in the Library is now 50,679 , of which 15,373 are books and 35,306 volumes of periodicals.

|  | Attendances. | Books borrowed. | Books added. | Volumes of periodicals added. | Pamphlets added. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 | 10,778 | 8926 (4177 by post) | 319 | 573 | 224 |
| 1948 | 11,547 | 9741 (3569 by post) | 282 | 583 | 187 |

It has been found possible to waive the Regulation requiring the registration of Library books sent through the post to addresses in Great Britain, and certain other Library Regulations have been simplified.

It gives the Committee much pleasure to record its sincere thanks to those authors and publishers who have courteously presented copies of newly published works to the Library, and also to Fellows and others who have enriched the Society's historical collection by the gift of copies of earlier publications.
income and expenditure gentral purposes account for the Year ended 31st December, 1949.

Income and Expenditure Accounts of other Funds for the Year ended 31st Deoember, 1949.

Income and Expenditure Accounts of other Funds for the Year ended 31st December, 1949.

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THE ROBERT JOHN FLINTOFF TRUST.


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The Chemical Society. Balance Sheets, 31st December, 1949.

The Chemical Society. Balance Sheets, 31st December, 1949.

The Chemioal Sooiety. Balance Sheets, 31st December, 1949.

SCHEDULE OF INVESTMENTS.



[^0]:    * Price two shillings and sixpence.

