

# ANNUAL GENERAL MEETING

THE Ninety-Seventh Annual General Meeting was held in the University of Manchester on Thursday, March 31st, 1938, at 4 p.m., the PRESIDENT, Professor F. G. DONNAN, C.B.E., D.Sc., F.R.S., occupying the Chair. The business portion of the meeting took place in the Staff House.

The notice convening the meeting was read.

The Report of Council for 1937 (see pp. 549—574) was presented, and the Treasurer, who was called upon by the President, dealt with the Accounts in detail. Taking first the General Purposes Account he remarked that the deficit was £757 as against £303 in 1936, and that the total income showed a decrease of £122 below that of the previous year, due to a reduction of £87 in the amount received as Life Composition Fees and to the Annual Subscriptions realising £34 less. On the expenditure side of the Accounts, there was an increase of £144 in the cost of administration and of meetings and of £121 in the contribution to the Publications Fund.

Dealing with the Publications Fund Account, the Treasurer stated that the total income exceeded that for 1936 by £852; of this, the sales of publications accounted for £410, increased revenue from advertisements for £59, and increased donations for £384. Passing to the expenditure side of the account, he referred to the increase of £371 in the cost of the *Journal* owing to an increase of 154 pages and to a 5 per cent. rise in printing charges and to the extra cost of *Abstracts* amounting to £693, which was due to dividing the Abstracts into three sections and providing two extra covers and also to an increase of 98 pages.

He referred to the considerable progress that had been achieved by the Chemical Council towards a satisfactory solution of the problems affecting the interests and activities of the three Constituent Bodies, stating that he was authorised to mention that a scheme for closer co-operation between the three Chartered Bodies had been drawn up by the Chemical Council, as a basis for discussion by the Councils of the three Bodies, who had the matter under consideration. The main object of the scheme was to render combined membership of the three bodies possible at a lower subscription than at present, and to allow to each member the option of a choice of the publications of the three bodies. It was hoped and expected that the scheme, if adopted, would in time attract sufficient new members to alleviate the financial difficulties of the publishing Societies due to the increasing cost of their publications. The funds placed at the disposal of the Chemical Council by Industry could be utilised to secure the financial stability of the new scheme in the early years.

In conclusion, he stated that though the present financial position was not too happy, there were reasonable indications that thanks to the prolonged and careful survey of the position of chemical publications made by the Chemical Council a permanent satisfactory financial basis of this side of the Society's activities would soon be established.

The Senior Secretary, in introducing the general sections of the Report of Council, dealt briefly with some of the activities of the Society during 1937. He stated that steps had now been taken to improve the *Annual Reports* and to render them more easily readable by the non-specialist; he referred to the changes that had been made in the form of the Proceedings, which now include a summary of the proceedings of Council, thus keeping Fellows more fully informed of the Council's deliberations. He also stated that the Council were now exploring other possible ways of providing further accommodation for library and administration purposes before deciding to give up the meeting room for these purposes. In conclusion he expressed the Council's appreciation of the services rendered by the permanent Officers of the Society and their respective staffs.

The adoption of the Report of Council for 1937, including Statements of Accounts and Balance Sheets, was proposed by Professor I. M. Heilbron, seconded by Dr. G. N. Burkhardt, and carried unanimously.

A vote of thanks to the Treasurer, Honorary Secretaries, Council, and Committees for their services during the year, proposed by Professor J. Kenner and seconded by Professor F. Challenger, was carried unanimously, Sir Gilbert Morgan making acknowledgment.

A vote of thanks to the Honorary Auditors (Dr. H. E. Cox, Dr. H. D. K. Drew, and Dr. G. Senter) for auditing the Accounts for 1937 was proposed by the Treasurer, seconded by Professor T. S. Moore, and carried. On the motion of the Treasurer they were re-elected for the ensuing year. Messrs. W. B. Keen & Co. were elected to audit the Accounts for the current financial year on the motion of Professor C. S. Gibson, seconded by Professor F. M. Rowe.

The report of the Scrutators on the ballot for the election of Ordinary Members of Council (Country Members) was presented and the President declared that new Members of Council had been elected as follows :

*Vice-Presidents who have filled the office of President*: Professor P. F. Frankland, Professor G. G. Henderson, Professor J. F. Thorpe.

*Ordinary Members of Council (Town Members)*: Dr. A. G. Francis, Dr. R. J. W. Le Fèvre.

*Ordinary Members of Council (Country Members)*: Dr. H. McCombie, Dr. E. B. R. Prideaux, Professor F. M. Rowe, Professor F. J. Wilson.

A vote of thanks to the Scrutators was proposed by Dr. T. A. Henry, seconded by Dr. H. Burton, and carried.

The proposed new Bye-Laws \* which had been circulated to Fellows were then formally submitted to the meeting for approval. The senior Honorary Secretary dealt with the proposed changes and called attention to a further modification of Bye-Law 47 recommended by the Solicitors. He also stated that expressions of opinion received from Fellows regarding the proposed Bye-Laws had been received as follows :

	For.	Against.
I. Proposals affecting the constitution of the Council .....	443	11
II. Proposals affecting the method of electing Fellows .....	439	17

A motion for the adoption of the new Bye-Laws as amended, proposed by Professor J. L. Simonsen and seconded by Dr. R. Fraser Thomson, was carried unanimously.

The President, Professor F. G. Donnan, then delivered his Presidential Address, entitled "Chemistry: Retrospect and Prospect," in the Chemistry Lecture Theatre of the University. At the conclusion of his Address, a vote of thanks to the President for his services in the Chair and for his Address was proposed by Professor N. V. Sidgwick, seconded by Professor M. W. Travers, and carried with acclamation.

A vote of thanks to the Council of the University of Manchester for hospitality was proposed by Dr. R. E. Slade, seconded by Professor G. Barger and carried, acknowledgment being made by Professor I. M. Heilbron. A vote of thanks to the Local Committee responsible for the arrangements of the Anniversary Meetings was proposed by Professor J. W. Cook, seconded by Dr. C. W. Davies, and carried, acknowledgment being made by Dr. D. W. Hill.

## REPORT OF COUNCIL, 1937.

During the year agreement was reached on two matters which had previously been examined in collaboration with other Societies. An Agreement was entered into with the Physiological Society, the Biochemical Society, and the Society of Chemical Industry for the re-constitution of the Bureau of Chemical Abstracts under the new title of the Bureau of Chemical and Physiological Abstracts, and for the enlargement of Abstracts A III, to include Physiology as well as Biochemistry. A joint committee on which the Society collaborated with the Physical Society and the Faraday Society issued a report on physico-

\* The new Bye-Laws, as adopted, will be printed and issued to Fellows in due course.

chemical symbols which has been adopted by the three Societies as a statement of recommended usage in their publications.

Two special Committees have reported during the year on possible ways of improving and extending the services of the Society. On the recommendation of these Committees, and with the financial support of the Chemical Council, arrangements have been made whereby every paper appearing in the *Journal* is now accompanied by a short summary of its contents, and preliminary steps have been taken towards finding a solution of the serious problem of Library accommodation. Other proposals submitted by the Committees raised the question of the relations between the Society, the Institute of Chemistry, and the Society of Chemical Industry, and further consideration of these proposals has been deferred until the Chemical Council has explored the possibility of introducing a general scheme for the co-ordination of some of the services of the three constituent Bodies. In the meantime the amount of matter published in the *Journal*, and especially in Abstracts "A" continues to grow. Meetings in London have been better attended, and the increase in the number of meetings held in other centres is a satisfactory feature.

Consideration has recently been given to the desirability of altering the constitution of Council by introducing a scheme for territorial representation, and of changing the system for the election of Fellows to the Society. Details of the proposed changes will be communicated to Fellows, and recommendations regarding the corresponding revision of the Bye-Laws will be submitted.

## I. FELLOWSHIP.

### (1) *Fellowship Statistics.*

The number of Fellows on 31st December, 1936, was 3746. During 1937, 221 Fellows were elected and 14 reinstated, the corresponding figures in 1936 being 205 and 22, respectively. The Society has lost 48 by death, 109 by resignation, and 49 by removal for non-payment of annual subscriptions, the total loss of 206 being the same as in the previous year.

The number of Fellows on December 31st, 1937, was 3775, showing a net increase of 29.

The names of those Fellows who during the year have completed 60 and 50 years of Fellowship have been announced at the Ordinary Scientific Meetings and have been published in the Proceedings.

### (2) *Honours.*

The congratulations of the Society were conveyed to the following Fellows whose names were included in the lists of Coronation and New Year Honours :

Dr. J. W. Mellor .....	C.B.E.
Sir David Milne-Watson .....	Baronet
Mr. Andrew More .....	I.S.O.
Mr. John W. Napier .....	M.B.E.
Col. Clive Newcomb .....	C.I.E.
Dr. Robert H. Pickard .....	Kt.
Mr. T. L. D. Porter .....	M.B.E.
Mr. P. F. Rowsell .....	C.B.E.
Mr. Duncan R. Wilson .....	Kt.
Mr. William F. Wyley .....	Kt.

The Council also conveyed its congratulations to Professor W. N. Haworth on being awarded jointly with Professor P. Karrer the Nobel Prize for Chemistry, to Sir Robert Pickard on his election as Vice-Chancellor of the University of London, and to Professor N. V. Sidgwick on his being awarded a Royal Medal by the Royal Society.

### (3) *Deaths.*

During the year the Council has had to mourn the loss of its distinguished *Past-President*, Professor H. E. Armstrong, who, elected as a Fellow in 1870, was the doyen of the Society.

A resolution passed by the Council in October expressing its profound sorrow was communicated to the Ordinary Scientific Meeting on 21st October and conveyed by the President to the relatives. An obituary notice will be published in the *Journal*.

The Council has also to mourn the loss of four of its distinguished *Honorary Fellows* during the year :

Professor Edward Curtis Franklin, elected in 1903; died on 13th February.

Professor Amé Pictet, elected in 1923; died on 11th March.

The Right Hon. Lord Rutherford of Nelson, elected in 1929; died on 19th October.

Professor Jean Baptiste Senderens, elected in 1920; died on 26th September.

Resolutions passed by the Council were communicated to Fellows at the Ordinary Scientific Meetings and the condolences of the Council have been conveyed to the relatives. Memorial lectures or obituary notices have been arranged.

## II. PUBLICATIONS.

### (1) *Journal*.

#### (a) *Report of the Publication Committee*.

The *Journal* for 1937 contains 2016 pages (1862), of which 1865 pages (1765) are occupied by 425 memoirs (414) and 18 notes (28). [The numbers in parentheses above are the corresponding figures for 1936.] There are also 5 lectures (50½ pages), the Presidential Address (6 pages), the Report of the Annual General Meeting (20 pages), reports on atomic weights and isotopes (19½ pages), and Obituary Notices (55 pages). The 425 memoirs comprise 119 dealing with General, Physical and Inorganic Chemistry and 306 dealing with Organic Chemistry.

During 1937, 433 papers were received; 7 of these were declined.

The average interval between receipt and publication of the papers in 1937 was 9·2 weeks (10·0, 9·8, 9·5, and 9·4 weeks for 1936, 1935, 1934, and 1933 respectively).

For convenience in noting references the Committee has arranged that, from January 1938, the year number shall be printed on each page of the *Journal*.

#### (b) *Summaries of Papers in the Journal*.

The authors of all papers submitted after June 1st have been required to furnish short summaries of their papers, setting forth briefly and in simple language the objects of the investigations, the results obtained, and their bearing on chemical knowledge in general. The response by authors has been excellent, and it is believed that the summaries will be of material help to all readers of the *Journal*. In particular, it is hoped that they may enable chemists who have not the leisure or the equipment to read specialised papers in detail, still to keep abreast of the general progress of the subject.

### (2) *Abstracts*.

The Report of the Bureau of Chemical Abstracts for 1937 is reproduced in full as Appendix B of this Report.

As already announced to Fellows, an Agreement has been entered into between the Physiological Society, the Biochemical Society, the Society of Chemical Industry, and this Society, under the terms of which *Physiological Abstracts*, which has hitherto been issued as a separate publication by the Physiological Society, will henceforth be incorporated with British Chemical Abstracts "A," issued by the Bureau of Chemical Abstracts.

In accordance with this, the Bureau of Chemical Abstracts has been re-constituted, and will be known as *The Bureau of Chemical and Physiological Abstracts*; it has been enlarged by the addition of two representatives appointed by the Physiological Society.

Section A III, which has hitherto consisted of Abstracts in Biochemistry, will also include abstracts in Physiology, and will be entitled "A III. Physiology and Biochemistry." This section will be available to members of the Physiological Society and of the

Biochemical Society at special subscription rates, and to Fellows of the Chemical Society free of charge.

A combined general index covering Pure and Applied Chemistry will be issued as heretofore, but will also include Physiology.

As from the beginning of 1938, the three sections of British Chemical and Physiological Abstracts "A" will be as follows:

Section A I: General, Physical and Inorganic Chemistry,

Section A II: Organic Chemistry,

Section A III: Physiology and Biochemistry.

Facilities have been given for Fellows to obtain additional copies at special rates, and also to procure Abstracts printed on one side of the paper *instead of or in addition to* those printed on both sides of the paper.

Every Fellow receiving *British Chemical and Physiological Abstracts "A"* is now asked to give an undertaking that all copies of the Abstracts supplied to him are for his own use, and will not be sold by him within 12 months of the date of issue. Such copies are marked "Member's Copy."

### (3) *Annual Reports.*

Volume XXXIII of the *Annual Reports* for 1936 was published in April. It contained 469 pages compared with 485 pages in the previous volume.

The Publication Committee has had under review the arrangements for producing the Annual Reports, but had not completed its deliberations by the end of the year. It is expected that the changes in view will come into operation in the production of the Reports for 1938. The intention of the Committee is to introduce features which will make the Reports more interesting to the non-specialist without diminishing their value for those who require detailed summaries.

### (4) *Symbols and Conventions.*

The Report of the Joint Committee of the Chemical Society, the Faraday Society, and the Physical Society on "Symbols for thermodynamical and physico-chemical quantities and conventions relating to their use" was issued in June, and has been adopted as a statement of recommended practice in the *Journal of the Chemical Society* and in *British Chemical and Physiological Abstracts*, as well as in the *Proceedings of the Physical Society* and the *Transactions of the Faraday Society*.

In submitting its report, the Joint Committee draws attention to the fact that committees which have dealt with this subject in the past have nearly always been representative of *either* physicists *or* chemists, and not, as in the present instance, of both. A considerable measure of agreement between British chemists and physicists has now been attained in regard to the use of different alphabets and founts for the various classes of symbols and abbreviations, as well as to the actual symbols for particular quantities. Adoption of the report by the three co-operating Societies represents an important step towards uniformity of usage, and it is hoped that it may lead to a wider measure of agreement with workers in other branches of science and technology.

Copies of the report were issued to Fellows in pamphlet form with the *Journal* for August, and the lists of the recommended symbols is reprinted in the Index number of the *Journal*. Extra copies of the Report may be purchased by Fellows at special rates.

### (5) *Prices of Publications.*

The prices to be charged for the publications of the Society to Fellows and to members of certain cognate Societies and to the public have been correlated and revised.

### III. MEETINGS.

#### (1) *Scientific Meetings.*

The Society has held 18 meetings in London during 1937. These included 5 Lectures, and 12 Ordinary Scientific Meetings. Of the latter, 4 took the form of organised Discussions, and at the other 8 meetings 25 papers were read and discussed. A visit to the Rothamsted Experimental Station at Harpenden was also arranged.

As an experiment, the Council decided that the Discussion held on 4th February should commence at 5 p.m. Arrangements were made for those present to dine together. The good attendance showed that this arrangement met with approval, and it was decided that two of the Discussions arranged for the session 1937-1938 should be held at this hour.

Meetings held outside London included 27 Lectures and 3 meetings for the reading of papers. The series of Bedson Lectures given at Newcastle-on-Tyne were also open to Fellows.

A complete list of Lectures and Discussions is given in Appendix D.

#### (2) *Anniversary Meetings.*

A report of the Anniversary Meetings held in London from 17th to 19th March appeared in the *Journal* and *Proceedings* for that month. The cordial thanks of the Council were conveyed to Professor V. M. Goldschmidt for delivering the Seventh Hugo Müller Lecture; to the Court and Senate of the University of London for granting permission for the Society to hold the Social Evening in the University new buildings; and to the Royal Institution for the use of the Lecture Theatre. Thanks were also conveyed to the Anglo-Iranian Oil Co., the Gas Light & Coke Co., Messrs. J. Lyons & Co., the Mond Nickel Co., the Imperial College and University College, London, for giving facilities for visits to their establishments and for hospitality provided.

The Council has accepted an invitation from Fellows in Manchester to hold the Anniversary Meeting of the Society in that city in 1938.

### IV. LIBRARY.

The Report of the Joint Library Committee for 1937 is printed as Appendix C of this Report.

#### *Library Accommodation.*

The question of Library accommodation referred to in last year's report has been investigated, and a report submitted to the Council of the Chemical Society and to the Chemical Council.

The Rooms of the Chemical Society are those allotted in 1873, when the membership was 682 and the Library contained about 3000 volumes. The Library now contains over 41,000 bound volumes, is growing at the rate of over 1000 bound volumes per annum, and is used by the members of eight Societies.

Space has been found for books in devious ways, but a position has now been reached when it is impossible to accommodate any more, and many volumes are unsuitably housed.

About one-half of the books are in steel rolling stacks in two basement rooms below street level with windows on the area facing Piccadilly. Should a fire occur or a water-main burst in the neighbourhood, there would be serious risk of irreparable damage through flooding. The Joint Library Committee concluded that the only satisfactory solution was to provide accommodation elsewhere for the whole Library. The Council of the Chemical Society has agreed, in principle, to the provision of other accommodation, and the Chemical Council has authorised the expenditure of a sum not exceeding £50 for the preparation of draft plans.

The scheme which the Joint Library Committee has in view would involve the raising of a very large sum of money, and in the meantime the possibility of using the Meeting Room for storage purposes has been under consideration, and plans have been prepared and submitted to His Majesty's Office of Works. This expedient, if sanctioned, would give

only temporary alleviation, and would necessitate the meetings of the Society being held elsewhere.

## V. OTHER ACTIVITIES.

### (1) *Grants for Research.*

In accordance with the decision of Council, the Research Fund Committee met this year in November instead of in December as in previous years. 71 applications for grants for research amounting to £770 were received and grants amounting to £645 were made. The list of grants made appeared in the *Proceedings* for November.

### (2) *General Services.*

The Special Committee to consider ways and means of increasing the membership of the Society, referred to in the last Report, presented a report to Council in February. Arising out of its recommendations, the Council decided to include summaries to papers in the *Journal*, and this came into practice in July. The Council also appointed a second Special Committee to consider proposals for improving the various services maintained by the Society, the cost of putting such proposals into effect and the arrangement of them in order of priority: this Committee held three meetings, and reported to Council in October. Some of its proposals, such as the drawing up of plans for re-housing the library, were duly adopted. In the forefront of its report, however, the Committee expressed the view that the realisation of its detailed recommendations for the improvement of individual services would be facilitated if it were possible to establish some general scheme of co-ordination of some of the services of the three constituent bodies of the Chemical Council, probably on the basis of a joint basic annual subscription.

This view was endorsed by the Council and reported to the Chemical Council. It was agreed that further consideration of the recommendations with regard to the improvement and extension of individual services should be deferred until the Chemical Council had considered the possibility of devising such a general co-ordination scheme.

### (3) *Coronation of Their Majesties The King and Queen.*

A loyal and dutiful Address of Congratulation to His Majesty the King, drawn up by the Chemical Council on behalf of the Chemical Society, the Institute of Chemistry and the Society of Chemical Industry, was presented on the occasion of the Coronation of Their Majesties the King and Queen on 12th May.

## VI. ADMINISTRATION.

### (1) *Council.*

#### *Personnel.*

In April, the Council received with much regret the resignation of Professor G. I. Finch as an Ordinary Member of Council owing to his appointment to the Fondation Francqui Chair at Brussels during the coming academic year. Dr. R. J. W. Le Fèvre was appointed to fill the vacancy until the Annual General Meeting in March 1938.

#### *Territorial Representation on Council.*

In order to meet the wishes of Fellows expressed through Local Representatives, a scheme for territorial representation on Council has been drawn up. This involves the division of the British Isles into six constituencies, each of which will be entitled to a certain number of representatives on the Council, depending essentially on the number of Fellows resident in each constituency. The main principles of the scheme have been arrived at in consultation with Local Representatives, and substantial agreement has been reached in regard to details.

Further particulars of this scheme and of certain other proposed changes in the constitution of Council will be sent to Fellows, who will be given an opportunity of expressing

their opinion for or against the whole project, for the guidance of the General Meeting to which the recommendations for the corresponding alterations of the Bye-Laws will be submitted.

(2) *Mode of Election of Fellows.*

In the opinion of the Council, the present system for the election of Fellows is unduly cumbersome, and involves unnecessary expenditure of money and time, in that it necessitates that forms of recommendation of candidates shall be published in full in the *Proceedings*, their names must be read at three scientific meetings, and their election effected by ballot by those Fellows attending the last of these meetings. Moreover, as only a very small proportion of Fellows are present at any one scientific meeting, this system of voting is not representative, and in practice the ballot has tended to become a mere formality. It is proposed, therefore, that the ballot should be abolished, and the election of Fellows put in the hands of the Council, but that Fellows should receive prior notice of the names of candidates for election and be given an opportunity of lodging an objection to any of them.

Further particulars of this proposal will be sent to Fellows, who will be enabled to express their opinion for or against the proposal before the corresponding alterations of the Bye-Laws are submitted to a General Meeting.

(3) *Local Representatives.*

During the year, the Council has accepted with much regret the resignations from the office of Local Representative of Mr. D. Ll. Hammick (Oxford) and of Professor W. Wardlaw (Birmingham), and has expressed its high appreciation of the valuable services they have rendered. Mr. R. P. Bell and Dr. Stanley Peat have been appointed to fill the respective vacant places.

A meeting of Local Representatives was held in London on 17th March, and various suggestions were referred to Council for consideration and action.

(4) *Centenary Celebrations, 1941.*

In March 1941 the Society will complete the first hundred years of its existence, and the Council has taken steps to set up a General Committee representative of all phases of the Society's activities and Fellowship to consider arrangements for the celebration of the Centenary.

## VII. FINANCE.

(1) *Accounts.*

*General Purposes Account.*

The excess of expenditure over income amounts to £757 (against £303 in 1936). Income is £122 less than in 1936, owing to a decrease of £87 in Life Composition Fees and of £34 in annual subscriptions. Expenditure increased by £332.

*Publications Fund.*

*Income.* Proceeds from sales of publications and advertisement receipts are up by £410 and £59, respectively. Donations show an increase of £384.

*Expenditure.* The cost of the *Journal* is up by £371, and of the Abstracts by £693. The *Annual Reports* cost £91 less.

*Library Fund.*

The amounts received towards the cost of maintenance of the Library for 1937 were £691 from the Institute of Chemistry, £394 from the Society of Chemical Industry, and £392 from the Chemical Society. In addition, £227 was received from other sources.

The Chemical Society spent £593 on books and periodicals, and £149 on binding; it also provided 97 copies of the *Journal* and 38 copies of the Abstracts "A" for exchange with other Journals.



*Investment.*

A sum of £299 11s. 5d. out of accumulated Life Composition Fees has been invested in £308 7s. 3 per cent. Funding Stock, 1959-69.

*(2) Contributions.*

The following contributions have been received towards the cost of the Society's publications for 1937 :

£700 from the Government Publications Grant (through the Royal Society).  
£880 from the Chemical Council.

The following sums have also been received from Fellows in commemoration of their completion of 50 years of Fellowship :

Dr. George McGowan .....	£10
Dr. Sydney Martineau .....	£50
Dr. G. T. Moody .....	£50

and have been or will be placed to the Centenary Fund.

The Council expresses its sincere thanks for these welcome contributions.

The Council also records its high appreciation of the generous action of those Fellows who continue each year to subscribe to the Publications Fund.

*(3) Bequests.*

Under the Will of the late Lady Tilden, the residue of her estate, after payment of legacies, annuities, and other expenses, is to be divided equally between the Royal Society and the Chemical Society.

The late Professor A. G. Perkin has bequeathed to the Society one fifth of the residue of his estate after payment of certain life interests.

*(4) Fire Insurance.*

The insurance of the property of the Society against the risk of fire has been increased by £3671.

**VIII. RELATIONS WITH OTHER BODIES.***(1) Chemical Council.*

Reference has been made above to the principal affairs of the Society in which the Chemical Council has played an important part during the year.

The second Annual Report of the Chemical Council is reproduced in Appendix A.

*(2) Representation of the Society on other Bodies.*

The following Fellows have been appointed to represent the Society :

*Bristol University Court :*

Professor F. G. Donnan.

*British National Committee for Chemistry :*

The President, Treasurer, and Senior Secretary.

*British Standards Institution :*

Council of the Chemical Division : Dr. J. J. Fox.

Technical Committees :

Co-ordinating the work of the Divisional Councils in regard to any British Standard which may be issued in future for units, conversion factors, fundamental formulæ, values for properties of materials, etc. : Dr. H. J. T. Ellingham.

Specifications for Materials and Plant used in Electroplating : Dr. U. R. Evans.

Standardisation of Scientific Glassware : Dr. J. J. Fox and Dr. E. B. Hughes.

Standards for use in the Dairying Industry : Mr. A. L. Bacharach and Mr. Eric Voelcker.

Chemical Symbols and Abbreviations : Dr. C. F. Goodeve.

*Bureau of Chemical and Physiological Abstracts :*

Mr. F. P. Dunn, Dr. G. A. R. Kon, Professor R. G. W. Norrish and the Senior Secretary, with the Treasurer *ex-officio*.

*Chemical Council :*

Professor F. G. Donnan, Professor I. M. Heilbron and Sir Gilbert Morgan.

*City and Guilds of London Institute :*

The President.

*Faraday Society :*

Colloid Committee : Mr. D. C. Henry.

*Home Office :*

Air Raid Precautions Department : Mr. J. Davidson Pratt.

*Joint Library Committee :*

Professor H. Bassett, Dr. O. L. Brady, Professor J. W. Cook, Professor C. H. Desch, Mr. M. B. Donald, Professor A. C. G. Egerton, Dr. H. J. Emeléus, Dr. C. F. Goodeve, Professor C. R. Harington, Dr. T. A. Henry, Dr. E. W. McClelland, Dr. W. H. Mills, Dr. E. E. Turner, Dr. J. C. Withers.

*Lawes Agricultural Trust :*

Committee of Management : Dr. E. F. Armstrong.

*Royal Microscopical Society :*

Committee dealing with Standardisation of Biological Stains : Professor A. G. Green.

(3) *Representatives of the Society at Public Functions.*

XVIIth Congrès de Chimie Industrielle and the 20ème Anniversaire de la Fondation de la Société de Chimie Industrielle (Paris, September 26th–October 2nd) : The President and the Treasurer.

Société Chimique de Belgique, Jubilee Celebrations (Brussels, 5–7th June) : Mr. W. A. S. Calder.

University of Durham Centenary Celebrations (Durham, 3rd July) : The President.

Réunion Internationale de Physique et Chimie et Biologie (Paris, 30th September to 7th October) : Professor J. W. Cook.

University of Allahabad 50th Anniversary Celebrations (Allahabad, 16th November) : Sir Bryce C. Burt and Sir Prafulla C. Ray.

University of Liège, Centenary Celebrations of the Foundation of l'Ecole des Mines (Liège, 26th and 27th November) : Professor G. I. Finch.

**IX. ACKNOWLEDGMENTS.**

The Council expresses its cordial thanks to those Fellows who have placed their valuable services at the disposal of the Society during the year, including Members of Committees, Local Representatives, Referees of papers submitted for the *Journal*, Contributors to the Annual Reports, and those who have given Lectures, opened Discussions and read papers.

The Council has expressed its high appreciation of the services of Mr. A. J. Greenaway and Professor J. T. Hewitt as representatives of the Society on the Bureau of Chemical Abstracts since 1924 and 1926 respectively.

The thanks of the Council have been conveyed to Mr. A. Bracher, Dr. R. Lessing, Mr. Emile Mond, and Professor S. Sugden for presenting volumes of the Society's publications; to Dr. E. F. Armstrong for various books, papers, etc., of historic interest from the late Professor H. E. Armstrong; to Professor J. B. Leathes for meeting the cost of the sections of Abstracts supplied to him as a Fellow; to Sir Robert Mond for a copy of the bronze medal struck to commemorate the 20th Anniversary Celebrations of the Société de Chimie Industrielle; and to the Wellcome Foundation, Ltd., for a replica of the commemorative medal struck in honour of Dr. F. B. Power.

**APPENDIX A.****SECOND ANNUAL REPORT OF THE CHEMICAL COUNCIL.**

6th December, 1937.

Since the publication of its first Annual Report (2nd December, 1936), the Council has pursued the policy therein outlined of promoting co-operation between the three Chartered Chemical Bodies, and in raising a fund to assist in meeting the cost of chemical publications and the Chemical Library.

The constitution of the Council provided that the object of the fund should be the allocation of grants for the co-ordination of scientific and educational publications, the publication of new discoveries, the promotion of research, the maintenance of the library of the Chemical Society, and eventually the provision of adequate accommodation.

The appeal for the fund was based on the proposal that "Industry" might help in the endeavour to cope with the overwhelming increase in the output of new scientific knowledge, which must be published and may, at any time, become of direct practical importance in the affairs of everyday life.

The Chemical Society (for nearly 100 years) and the Society of Chemical Industry (for nearly 60 years) have published the record of progress of pure and applied chemistry almost entirely at the expense of their members, but, owing to the extraordinary development of the science, those who pursue it have become divided into other specialised societies and groups, so that there are now twenty different bodies, of which British chemists may become members. As a result, the membership of the two large publishing societies has, for some years past, remained nearly stationary, and the societies have found their expenditure exceeding their income.

While universities, colleges and other institutions are often endowed by generous benefactors, with funds for research purposes, provision has seldom been made for the publication of results; yet the importance of such publication to the country is incalculable. Government help is provided by a Publications Grant, administered by the Royal Society, and from that the Chemical Society has received very valuable help, but it must be borne in mind that other sciences also require assistance. It follows, therefore, that if chemical publications are to continue to serve a useful purpose, the cost must still be met largely by chemists themselves. In other words, every chemist, whether he wishes to possess the publications or not, should help in defraying the cost of producing them.

Before the issue of the first appeal, in June 1936, the Council received many contributions and promises from chemists,—including £9000 from Sir Robert Mond (which, being contributed under Deed of Covenant, will ultimately realise approximately £11,491 13s. 4d.), and a sum of £2128 19s. 7d. received from the liquidators of the Association of Scientific and Technical Institutions, in respect of contributions previously made by chemists to the funds of that Association.

In the first appeal issued by the Council, it was sought to obtain funds for (a) an *endowment* fund to provide permanent additional income for the publications, and (b) a *capital* fund to maintain the cost of the library, and (eventually) to provide suitable premises.

However, at the request of the contributors who are members of the Association of British Chemical Manufacturers and of Allied Associations, the greater part of the sum so far promised or contributed is to be devoted to *current expenditure* for the next seven years, in the hope that, with the help of the Council, the societies may be placed on a self-supporting basis and may be able to augment the numerical strength of their membership, by working in closer co-operation, and by improving their publications and services, in the interests of all branches of chemistry. Practically the whole of the contributions for *current expenditure* comes from chemical industry.

Accordingly, it will be seen that the contributions (to 22nd November, 1937) for the *Endowment Fund* amount to £24,680 19s. 9d. and those for *Current Expenses* to £27,044 18s. 9d.—in all a sum of £51,725 18s. 6d. This includes the contributions and promises received in reply to a second appeal, which was published in June, 1937.

The appeals were circulated very widely, but did not meet with that general response for which the Council hoped; in fact, the fund has made good progress through the generosity of comparatively few contributors.

However, it is not for lack of sympathy with, or appreciation of, the objects for which it was established that the number of contributors has been disappointing. The replies contain expressions of encouragement, although in many instances directors or those responsible feel that other causes have a more direct claim upon them. The great City Guilds, for example, indicate that the first call upon their funds must be directed to channels of a strictly charitable nature—such as hospitals, schools, etc.

The banking, railway and insurance companies acknowledge the desirability of promoting the objects of the fund, but do not recognise that science has a direct claim on their consideration. Representative companies in the engineering, electrical, metallurgical, and mining industries, and even some gas companies, suggest that the bearing and importance of chemistry on their undertakings is somewhat remote, notwithstanding that their opera-

tions and the materials they employ are obviously of a chemical nature, and dependent upon chemical science for their development and improvement.

Some companies say that "chemistry is of no direct benefit to us," or that they must limit their financial support to objects more intimately concerned with their own undertakings; others mention that they are already contributing to industrial research associations, and hold that they should restrict their donations to organisations devoted to their own particular industries: such donations should be regarded as their contribution to chemistry. Others consider that it is sufficient that their chemists should subscribe to the societies, or contend that they are supporting chemistry by employing chemists; so that it would seem that they entirely overlook the fact that their chemists are dependent for new scientific and technical knowledge upon the continued existence of the publishing societies. Several manufacturers maintain that, as they possess their own laboratories, and staffs of chemists, it is unnecessary for them to provide funds for the publication of new knowledge discovered elsewhere. It is clear, however, that the work carried out in their laboratories must necessarily be of an *ad hoc* character—work which must have a bearing on their own immediate requirements. They have neither the time or do they wish to run the risk of undertaking fundamental or "long-distance" research, and yet it is upon this kind of research that development depends. Excellent and useful as it is, *ad hoc* research ultimately reaches its limit and the investigator who relies on it will soon find himself at a standstill, owing to the lack of the direction which fundamental enquiry affords.

Notwithstanding these demurs, the effect of which it is sincerely hoped chemists will endeavour to correct, the response referred to above has been very gratifying to the Council, and the publishing societies are now in a position to take steps, without unreasonable restrictions, towards the improvement of their publications. One suggestion in particular, as part of the policy of making the journals of the societies more attractive, for which the Council has already made provision,—namely that each paper accepted for publication should be accompanied by a clear and concise summary of its contents,—has already been adopted. Further than that, it is emphasised that the records of investigations accepted for publication should be of sufficient scientific importance, of wide enough interest, and reasonably complete, and that the subject-matter should be so presented as to render it easily understood.

Among other matters discussed by the Council during the year have been the more even distribution of the cost of publications and the provision of a scheme by which the activities of the Societies can be collated. These are subjects which require careful and thorough investigation, and will be reported upon in due course.

Another problem of immediate urgency which is receiving attention is the housing of the library of the Chemical Society, the accommodation for which at Burlington House, Piccadilly, is now exhausted.

The Chemical Council has had under consideration means for effecting economies in various other directions, and has continued to negotiate contracts for printing and paper supplies. Difficulties arising from reduction of hours in the printing trade, and increase of prices in the paper trade, have had to be met and, in the adverse circumstances, the best terms have been secured.

Since the audit of the accounts (30th September, 1937), funds have been placed at the disposal of both publishing societies.

Professor N. V. Sidgwick, C.B.E., M.A., F.R.S., on completing his term of office as President of the Chemical Society in March last, relinquished his seat on the Chemical Council. The vacancy thus caused was filled by the appointment of the new President of the Society, Professor F. G. Donnan, C.B.E., D.Sc., F.R.S.

The Council acknowledges the further helpful advice of Mr. F. P. Dunn, B.Sc., A.R.C.S., F.I.C., in matters relating to publications, and the continued honorary services of the Registrar and Secretary and the staff of the Institute of Chemistry.

ROBERT H. PICKARD,  
*Chairman.*

30, Russell Square,  
London, W.C.1.

SUMMARY OF CONTRIBUTIONS RECEIVED AND PROMISED TO  
30TH SEPTEMBER, 1937.

	£	s.	d.	£	s.	d.	£	s.	d.
<i>Endowment Account.</i>									
Received and receivable to date per Balance Sheet :									
Under Deed of Covenant, 1935-36 ... ..	404	6	11						
"    "    "    1936-37 ... ..	2,129	0	6						
	<hr/>			2,533	7	5			
Donations, 1935-36 ... ..	6,041	8	10						
"    1936-37 ... ..	1,284	0	3						
	<hr/>			7,325	9	1			
							9,858	16	6
Amounts outstanding :									
Under Deeds of Covenant ... ..				13,757	7	6			
Under Promise ... ..				633	9	2			
	<hr/>						14,390	16	8
							24,249	13	2
<i>Building Account.</i>									
Received to date per Balance Sheet ... ..				30	0	0			
Amount outstanding under Deed of Covenant ... ..				75	0	0			
	<hr/>						105	0	0
<i>Current Expense Account</i> <i>(Contributions from A.B.C.M. and Allied Associations).</i>									
Received to date :									
Under Deed of Covenant, 1935-36 ... ..	120	0	0						
"    "    "    1936-37 ... ..	3,434	1	3						
	<hr/>			3,554	1	3			
Donations, 1935-36 ... ..	205	0	0						
"    1936-37 ... ..	2,423	6	0						
	<hr/>			2,628	6	0			
				6,182	7	3			
Amount outstanding under :									
Deeds of Covenant ... ..	20,484	7	6						
Promises ... ..	328	4	0						
	<hr/>			20,812	11	6			
							26,994	18	9
							£51,349	11	11
Total ... ..									

*A copy of the audited Accounts can be obtained on application to the Hon. Secretary, The Chemical Council, 30, Russell Square, London, W.C. 1.*

## APPENDIX B.

## REPORT OF THE BUREAU OF CHEMICAL ABSTRACTS FOR 1937.

Six meetings of the Bureau were held during the year.

The Indexing Sub-Committee, and the A III Advisory Sub-Committee also held meetings.

The Bureau wishes to record its very high appreciation of the services rendered by Mr. A. J. Greenaway and Dr. J. T. Hewitt, who retired from the Bureau at the end of 1937 after having served since 1924 and 1926 respectively.

The most important event in the proceedings of the Bureau during the year has been the Agreement between the Physiological Society, the Biochemical Society, the Chemical Society, and the Society of Chemical Industry, dated July 13th, 1937, whereby the Physiological Society becomes one of the constituent members of the Bureau. The title of the Bureau is to be changed to "Bureau of Chemical and Physiological Abstracts," and the production of Physiological Abstracts will be undertaken by the Bureau as a part of Section A III, which will have the new title of "Physiology and Biochemistry."

The first representatives of the Physiological Society on the Bureau are Prof. J. H. Gaddum and Prof. B. A. McSwiney. Prof. Samson Wright has been appointed the first Assistant Editor of the Physiology Section of A III.

A Sub-Committee consisting of the Chairman of the Bureau, Mr. J. L. Baker, Prof. J. H. Gaddum, and Prof. B. A. McSwiney has been appointed in accordance with the Agreement to deal with questions of policy and finance of Section A III.

A junior clerk has been engaged to deal with the additional work due to this new arrangement.

*Abstracts.*—The total number of abstracts published during 1937 was 35,939, as compared with 34,321 in 1936, an increase of 1418. The appended table shows the number of abstracts and pages printed in each quarter, as well as the average length, the figures for 1936 being included for comparison.

	Abstracts A.				Abstracts B.			
	1936.		1937.		1936.		1937.	
	No. of Abs.	Pages.	No. of Abs.	Pages.	No. of Abs.	Pages.	No. of Abs.	Pages.
1st quarter .....	4,464	396	4,103	394	3,840	286	3,925	298
2nd " .....	4,243	372	4,998	454	4,026	288	4,424	328
3rd " .....	4,396	398	4,316	398	4,386	320	4,555	360
4th " .....	4,295	406	4,122	424	4,671	344	5,496	428
	<u>17,398</u>	<u>1,572</u>	<u>17,539</u>	<u>1,670</u>	<u>16,923</u>	<u>1,238</u>	<u>18,400</u>	<u>1,414</u>
Average length per abstract ...	0·18 Column		0·19 Column		0·15 Column		0·15 Column	

The 17,539 "A" Abstracts comprised 8089 in A I, 3065 in A II and 6385 in A III. The corresponding figures for 1936 were 8236, 3156, and 6006.

Of the 18,400 "B" Abstracts, 10,883 were from journal literature and 7517 were abstracts of Patents (in 1936, 8771 and 8152 respectively).

It will be observed that the total number of "A" Abstracts has increased slightly, but the number of abstracts in Sections A I and II is slightly lower than in 1936, whereas the abstracts in Section A III show an increase of about 5 per cent. in number; this is in accordance with the increasing volume of biochemical literature now being published.

The greatest change in the Abstracts has occurred in Section "B," where it will be seen that, although there was a small decrease in the number of Patents abstracted, the abstracts from journal literature were 2112 more than in 1936. This is due to two main causes. Firstly, many more abstracts are being prepared for the Bureau, particularly by Mr. A. G. Pollard, Mr. R. B. Clarke, and Dr. W. L. Davies, who have used journals available to them at the Science Library, the Fuel Research Station, and the National Institute for Research in Dairying. The second factor has been the receipt by the Bureau of some fifty journals, not previously available, on loan from the Science Library. These journals deal mainly with technical subjects, and the abstracts from them have filled in many gaps which could otherwise only have been done at heavy expense. The loan of these journals has been rendered possible by the very helpful co-operation of Dr. S. C. Bradford, the Librarian of the Science Library, and the Bureau wishes to record its grateful thanks to him for his services, and also to Mr. A. G. Pollard, who has kindly undertaken the task of collecting these journals and forwarding them to the Bureau.

*Annual Index.*—The joint Annual Index to the Abstracts for 1936 covered 794 pages, an increase of 40 pages over the 754 of the 1935 Index. The cost of printing the Index was £1539 7s. 11d. and of the paper £231 11s. 9d. (corresponding figures for the 1935 Index were: £1445 19s. 9d. and £290 8s. 3d.). The total number of entries in the Index was 113,160, compared with 105,850 in 1935.

*Indexing Department.*—During the year the proposals regarding this section of the work made by the Bureau to the two Societies were formally approved. A number of applications were received for the position of full-time Assistant Indexer, and finally Miss E. M. Tanner was selected; she commenced work on August 1st, and a room was secured at 26, Charing Cross Road, to house the Indexing Department. Although this arrangement has been in operation only for a short time, it appears to be working very satisfactorily.

In order to deal with the increasing bulk of abstracts, and particularly those in Section A III, it has been arranged that Miss Goring Thomas, who has previously given part-time assistance, shall be employed full-time on indexing work during 1938.

*Improvement of Abstracts.*—The Bureau has, at the request of the Chemical Society, considered means whereby improvements could be effected in the "A" Abstracts, and has presented a report to the Chemical Society on the subject.

Consideration is being given to the possibility of further collaboration with other organisations publishing abstracts.

In order to advise on possible improvements and consider details connected with the Abstracts, the following provisional Advisory Sub-Committees were appointed, and were asked in particular to explore the possibilities of further collaboration as indicated above :

- For A I and A II : Dr. H. J. T. Ellingham (*convener*).  
 Mr. F. P. Dunn  
 Dr. G. A. R. Kon  
 Prof. R. G. W. Norrish.
- For "B" : Dr. L. A. Jordan (*convener*).  
 Dr. F. H. Carr  
 Mr. F. P. Dunn  
 Mr. W. Macnab.

These two Sub-Committees are in addition to the A III Sub-Committee referred to above.

*Prices of Abstracts.*—A revised scale of prices for the various sections of the Abstracts was presented to the two Societies, and has been approved for adoption in 1938.

*Decennial Index.*—A further 22 copies of the Decennial Index have been sold during the year, making a total of 825.

The further sum of £50 has been forwarded to each of the two Societies as representing half of the available balance in the Decennial Index Fund.

## APPENDIX C.

### REPORT OF THE JOINT LIBRARY COMMITTEE FOR 1937.

Excluding the evenings on which meetings of the Chemical Society were held, there were 8554 attendances during the year, as compared with 8917 in 1936. Of these 4988 were made by Fellows of the Chemical Society, and 3566 by Members of other Constituent and Contributing Bodies, as against 5377 and 3540 in 1936.

The number of books borrowed was 5666, against 5594 in the previous year; of these 1468 were issued by post, compared with 1650 in the preceding year.

The Library telephone facilities are still extensively used, and the incoming calls included 941 inquiries which necessitated reference to books in the Library, as against 937 the previous year.

The additions to the Library comprise :

274 books, of which 87 were presented, 738 volumes of periodicals and 201 pamphlets; as against 257 books, 734 volumes of periodicals and 224 pamphlets last year.

		<i>Analysis.</i>			
	Attendances.	Books borrowed.	Books. added.	Volumes of periodicals added.	Pamphlets added.
1937 .....	8554	5666	274	738	201
1936 .....	8917	5594	257	734	224

The total number of volumes added during the year was 1012. The Library now contains 41,678 volumes, consisting of 12,551 books and 29,127 bound volumes of periodicals.

The attendances were adversely affected by the Coronation and the Bus strike.

The Committee wishes to record its grateful appreciation of the gifts received from Fellows and others during the year; these included 14 volumes of historical interest, not already in the Society's collection, presented at the wish of the late Professor T. M. Lowry.

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## APPENDIX D.

### LECTURES AND DISCUSSIONS.

#### *Lectures held in London.*

4th March, on "Some Problems of Tyrosine Metabolism," by Professor H. S. Raper; 17th March, Seventh Hugo Müller Lecture, entitled "Principles of Distribution of Chemical Elements in Minerals and Rocks," by Professor Dr. V. M. Goldschmidt; 29th April, Haber Memorial Lecture, by Professor J. E. Coates; 28th October, Le Chatelier Memorial Lecture, by Professor C. H. Desch; 18th November, on "Bond Character and Interatomic Distance" by Dr. J. M. Robertson.

#### *Discussions held in London.*

4th February, on "The Transition State in Reaction Kinetics"; 15th April (Joint Discussion with the London Section of the Society of Chemical Industry), on "Physico-Chemical Problems Involved in Distillation"; 20th May, on "Synthesis and Stereochemistry of Condensed Alicyclic Systems"; 2nd December, on "The Influence of Structure on the Action of Parasitocidal Drugs."

#### *Lectures held outside London.*

*Birmingham.* At the University, Edgbaston: (Joint meetings with the Birmingham University Chemical Society), 8th March, on "Recent Developments in Surface Action," by Professor E. K. Rideal; 15th March, on "Brazilin," by Professor R. Robinson; 15th November, on "Nucleic Acids," by Professor J. M. Gulland.

*Bristol.* At the University: 4th February, on "The Chemistry of Ascorbic Acid and its Analogues," by Professor E. L. Hirst.

*Edinburgh.* At the Pharmaceutical Society, Edinburgh: 17th March, (Joint meeting with the local sections of the Institute of Chemistry and the Society of Chemical Industry), on "Some Fundamental Laws of Chemical Change," by Professor C. N. Hinshelwood; at the University: 2nd November (Joint meeting with the University of Edinburgh Chemical Society), on "Some Aspects of the Organic Chemistry of Nitrogen," by Professor G. R. Clemon.

*Glasgow.* At the Royal Technical College: 19th February, on "Ionic Migration" by Professor J. Kendall; 22nd October (Joint meeting with the Glasgow Sections of the Institute of Chemistry and the Society of Chemical Industry), on "Systematic Theory of the Liquid State," by Professor J. D. Bernal.

*Leeds.* At the University: 28th January, on "Silicates," by Professor W. L. Bragg; 25th November, on "Enzymes as Chemical Tools," by Professor J. M. Gulland.

*Liverpool.* At the University: 29th January, on "Sesquiterpene Ketones, their Structure and Synthesis," by Professor J. L. Simonsen; 24th February, on "Some Aspects of Modern Analytical Chemistry," by Dr. J. J. Fox; 15th March, on "Mechanism of some Biological Oxidations," by Professor D. Keilin; 2nd November, on "Recent Results in the Study of Free Radicals by Photochemical Methods," by Professor R. G. W. Norrish.

*Manchester.* At the Constitutional Club: 8th January, (Joint meeting with the Manchester Section of the Society of Chemical Industry and the Society of Dyers and Colourists), on "Reaction of Diazosulphonates derived from  $\beta$ -Naphthol-1-sulphonic Acid," by



Professor F. M. Rowe; At the University : 16th February, (Joint meeting with the Manchester University Chemical Society), on "The Biochemical Rôle of the Vitamin-B Complex," by Professor R. A. Peters. At the Manchester Central Library : 5th November (Joint meeting with the Society of Chemical Industry, the Institute of Chemistry, the Society of Dyers and Colourists, and the Manchester Literary and Philosophical Society), on "Researches on Rubber and Rubber-like Substances," by Dr. Kurt H. Meyer.

*Newcastle and Durham.* Bedson Lectures at King's College, Newcastle-on-Tyne : 1st February, on "Catalytic Activation of Nitrogen," by Professor M. Polanyi; 5th March, on "The X-Ray Interpretation of Protein Structure," by Dr. W. T. Astbury; 21st May, on "Chemistry in Food Production," by Sir John Russell; 25th October, on "Electron Diffraction and Surface Structure," by Professor G. Ingle Finch; 26th November, on "Chemistry in the Ancient World," by Professor J. R. Partington.

*North Wales.* At the University College, Bangor : (Joint meetings with the University College of N. Wales Chemical Society), 21st January, on "Quantitative Study of Some Gas Reactions," by Professor M. W. Travers; 5th November, on "Exchange between Light and Heavy Hydrogen," by Professor C. K. Ingold.

*Nottingham.* At the University College : 29th October, on "The Biochemistry of the Waxes," by Professor A. C. Chibnall.

*St. Andrews and Dundee.* At the University, St. Andrews : 26th February (Joint meeting with the St. Andrews University Chemical Society), on "Crystallography as a Chemical Tool," by Professor G. M. Bennett.

*Sheffield.* At the University : 19th February, on "The Unravelling of Complex Reactions," by Professor H. M. Dawson; 12th November, on "An Hour Among the Alchemists," by Professor John Read.

*South Wales.* At the University College of Swansea : (Joint meetings with the University College of Swansea Chemical Society); 29th January, on "Recent Progress in Inorganic Chemistry," by Professor W. Wardlaw; 28th October, on "Some Aspects of Electrolytic Oxidation," by Dr. S. Glasstone. At the Technical College, Cardiff : 22nd October (Joint meeting with the Cardiff Technical College Chemical Society), on "The Chemical Exploration of the Stratosphere," by Professor F. A. Paneth.



INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1937.

PUBLICATIONS FUND.

1936			1937			1936			1937		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
<i>Income.</i>											
To Publication Sales (including back numbers):											
2502	14	4	2793	16	2	1159	18	9	1160	2	3
1878	10	8	2004	1	2	85	12	6	85	12	6
23	15	0	31	0	9	33	1	0	33	19	8
115	0	0	50	0	0	3316	1	8	3645	17	2
909	3	5	967	6	5	558	13	5	596	8	2
1	5	0	1	0	4	343	13	6	344	18	7
6	16	0	—	—	—	18	11	8	19	5	4
660	0	11	748	18	5	5515	12	6	5886	3	8
196	13	4	226	6	0	1304	15	4	1323	15	4
500	0	0	—	—	—	79	19	6	93	18	10
11	15	0	15	19	0	1536	16	10	1626	8	9
—	—	—	800	0	0	3571	4	11	4044	0	9
—	—	—	80	0	0	863	6	1	416	10	5
—	—	—	80	0	0	95	12	6	189	17	9
511	15	0	895	19	0	6972	14	0	7665	10	0
700	0	0	700	0	0	882	10	5	771	18	3
306	19	6	300	0	0	—	—	—	—	—	—
89	6	0	84	17	10	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
6841	19	1	8962	17	10	—	—	—	—	—	—
£13,350	16	11	£14,323	11	11	£13,350	16	11	£14,323	11	11

*Expenditure.*

By Expenses on account of Journal:  
 Editorial Salaries ... ..  
 Superannuation ... ..  
 Editorial Postages ... ..  
 Printing, Paper, etc. ... ..  
 Distribution ... ..  
 Authors' Copies ... ..  
 Miscellaneous ... ..

Expenses on account of Abstracts:  
 Editorial Salaries ... ..  
 Superannuation ... ..  
 Editorial Postages ... ..  
 Abstractors' Fees ... ..  
 Printing, Paper, etc. ... ..  
 Distribution ... ..  
 Miscellaneous ... ..

Annual Reports on the Progress of Chemistry:  
 Printing and Honoraria ... ..

£14,323 11 11

£13,350 16 11

£14,323 11 11

£13,350 16 11

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1937.

LIBRARY.

1936		1937		1938		1937	
£	s. d.	£	s. d.	£	s. d.	£	s. d.
<i>Income.</i>							
820	0 9	642	9 7	147	13 3	593	4 10
To Contribution for Fittings, Furniture, Books, Periodicals and Bindings							
Transfer from General Purposes Account ...							
Do. Herbert Spencer Bequest ...							
820	0 9	200	0 0	23	4 0	149	4 9
Contributions through the Chemical Council towards maintenance:							
Chemical Society (transfer from General Purposes Account) ...							
382	19 10	391	10 9	39	15 8	42	9 9
646	10 0	691	9 4	14	16 2	15	7 11
448	0 0	394	9 11	24	9 5	26	11 6
Institute of Chemistry ...							
Society of Chemical Industry ...							
1477	9 10	1477	10 0	27	10 1	26	12 7
Contributions, etc., received from other sources towards maintenance:							
Association of British Chemical Manufacturers ...							
100	0 0	100	0 0	1403	2 0	1461	3 5
21	0 0	21	0 0	162	3 0	167	1 0
16	15 0	16	15 0	39	15 8	42	9 9
50	0 0	50	0 0	14	16 2	15	7 11
10	10 0	10	10 0	24	9 5	26	11 6
21	0 0	21	0 0	27	10 1	26	12 7
3	0 0	3	0 0	25	1 3	25	12 10
7	10 3	6	5 9	9	7 6	9	6 8
Miscellaneous receipts ...							
228	15 3	227	10 9	1706	5 1	1762	5 8
Balance transferred from General Purposes Account ...							
£2526 5 10		£2504 15 3		£2526 5 10		£2504 15 3	

*Expenditure.*

By Books and Periodicals * ...	593	4 10	
" Binding ...	149	4 9	
" Furniture ...	—	—	
" Maintenance:			
Salaries and Wages ...	1461	3 5	
Superannuation of Library Staff ...	167	1 0	
Printing, Stationery (proportion) ...	42	9 9	
Postages ...	15	7 11	
House Expenses (proportion) ...	26	11 6	
Coal and Lighting (proportion) ...	26	12 7	
Insurance ...	25	12 10	
Miscellaneous Expenses ...	9	6 8	
820	0 9	1762	5 8

\* Other than those received in exchange.

## INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1937.

RESEARCH FUND.			EXPENDITURE.		
1936			1937		
£	s.	d.	£	s.	d.
6660	1	2	480	18	9
Income.			Expenditure.		
491	4	0	To Dividends on Investments	...	...
129	7	10	Income Tax recovered	...	...
84	2	0	Repayment of Grants	...	...
4	0	0	Grants not applied for	...	...
1	7	4	Interest on Deposit	...	...
—	—	—	Sale of Apparatus	...	...
—	—	—	By Honorarium, Hugo Müller Lecturer	...	...
—	—	—	Do.	...	...
—	—	—	Longstaff Medal	...	...
—	—	—	Grants	...	...
—	—	—	Miscellaneous Expenses	...	...
—	—	—	Balance, being Excess of Income over Expenditure, carried to Balance Sheet	...	...
6660	1	2	644	17	6
£736	14	4	5	15	8
£736	14	4	65	1	2
£736	14	4	£736	14	4

## SPECIAL PUBLICATIONS FUND.

1936			1937		
£	s.	d.	£	s.	d.
70	0	0	67	3	5
10	7	6	153	8	1
10	6	0	15	1	10
9	10	10	3	4	9
4	12	0	27	16	6
1	19	0	—	—	—
0	1	2	—	—	—
1	1	0	—	—	—
23	17	7	—	—	—
137	8	11	42	8	10
74	0	8	74	0	8
2	18	0	1	14	4
52	6	0	—	—	—
266	13	7	£118	3	10
£266	13	7	£266	13	7

  

1936			1937		
£	s.	d.	£	s.	d.
70	0	0	7	14	0
10	7	6	6	4	9
10	6	0	7	12	0
9	10	10	3	4	0
4	12	0	3	2	6
1	19	0	7	18	11
0	1	2	1	0	4
1	1	0	—	—	—
23	17	7	—	—	—
137	8	11	5	12	0
74	0	8	—	—	—
2	18	0	—	—	—
52	6	0	—	—	—
266	13	7	£118	3	10
£266	13	7	£118	3	10

## Income.

To Sales of Publications:  
 Abstract "A" printed on one side of the paper ...  
 Memorial Lectures, Vol. I ...  
 Do. Vol. II ...  
 Do. Vol. III ...  
 List of Fellows ...  
 Faraday Lectures ...  
 Faraday Lectures ...  
 Perkin Memorial Volume ...  
 Discussion Number ...  
 Lecture on "Modern Chemical Nomenclature" ...  
 Report on Physico-Chemical Symbols ...

## Expenditure.

By Production of Abstracts "A" printed on one side of the paper ...  
 Do. List of Fellows ...  
 Do. Report on Physico-Chemical Symbols ...  
 Reprints for Memorial Lectures, Vol. IV ...  
 Do. Faraday Lectures, Vol. II ...  
 Do. Faraday Lectures ...  
 Do. Lecture on "Modern Chemical Nomenclature" ...  
 Excess of Income over Expenditure carried to Balance Sheet ...

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1937.

SPECIAL LECTURES FUND.

	1936		1937		1937	
	£	s. d.	£	s. d.	£	s. d.
<i>Income.</i>						
To Dividends on Investments	40	2 7	39	16 10	..	..
" Income Tax recovered	5	4 0	5	9 10	..	..
" Interest on Deposit	14	5	9	11	..	..
" Balance, being Excess of Expenditure over Income, carried to Balance Sheet	21	15 10	..	..	..	..
	£87	16 10	£46	16 7		
<i>Expenditure.</i>						
By Honoraria	..	..	..	..	..	..
" Lecture Expenses	..	..	..	..	..	..
" Miscellaneous Expenses	..	..	..	..	..	..
" Balance, being Excess of Income over Expenditure, carried to Balance Sheet	..	..	..	..	..	..
	..	..	..	..	..	..
			43	0 7		
			£46	16 7		

STAFF PENSIONS FUND.

	£	s. d.	£	s. d.
To Transfer from General Purposes Account	77	12 4	77	17 0
" Dividends on Investments	38	4 0	37	14 9
" Income Tax recovered	4	3 8	4	8 3
	£120	0 0	£120	0 0
By Pension paid during 1936	..	..	..	..
	..	..	..	..
			120	0 0
			£120	0 0

THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.

	£	s. d.	£	s. d.
To Dividends on Investments	40	15 0	40	2 5
" Income Tax recovered	11	5 10	11	18 6
" Interest on Deposit	..	..	..	..
" Excess of Expenditure over Income carried to Balance Sheet	106	12 8	12	0
	£168	6 6	£168	6 6
By Harrison Prize	..	..	..	..
" Harrison Plaque	..	..	..	..
" Miscellaneous Expenses	..	..	..	..
" Balance, being Excess of Income over Expenditure, carried to Balance Sheet	..	..	..	..
	..	..	..	..
			62	12 11
			£62	12 11

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1937.

CENTENARY FUND.

1936	<i>Income.</i>		1937		1936		<i>Expenditure.</i>		1937		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
—	—	To Donations	60	0	0	—	—	By Excess of Income over Expenditure carried to Balance Sheet	200	6	9
—	—	" Contribution from General Purposes Account	200	0	0	—	—	...	...	...	...
—	—	" Interest on Deposit	6	9	6	9	—	—	...	...	...
—	—		266	0	9	—	—	...	...	...	...
			266	0	9	260	0	9	200	0	0

THE HERBERT SPENCER BEQUEST.

1936	<i>Income.</i>		1937		1936		<i>Expenditure.</i>		1937		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
309	3	6	309	7	6	309	3	6	309	3	6
—	—	To Interest on Deposit in Post Office Savings Bank	190	12	6	—	—	By Expenditure on Repairs to Premises	200	0	0
—	—	" Excess of Expenditure over Income carried to Balance Sheet	—	—	—	—	—	" Transfer to Library Account for purchase of Books	200	0	0
309	3	6	309	0	0	309	3	6	200	0	0

THE CHEMICAL SOCIETY.—BALANCE SHEETS, 31st December, 1937.

GENERAL PURPOSES.		1936		1937		1936		1937	
£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
<b>Liabilities.</b>									
21,241	9 4	23,071 0 11		23,071 0 11		23,071 0 11		23,071 0 11	
302	19 10	756 15 6		756 15 6		756 15 6		756 15 6	
20,938	9 6	22,314 5 5		22,314 5 5		22,314 5 5		22,314 5 5	
1,863	0 0	95 0 0		95 0 0		95 0 0		95 0 0	
209	11 5	23,071 0 11		23,071 0 11		23,071 0 11		23,071 0 11	
<b>Assets.</b>									
By Investments as per Schedule (cost or value when acquired)		27,717 5 1		27,717 5 1		27,717 5 1		27,717 5 1	
" Sundry Debtors		431 6 6		431 6 6		431 6 6		431 6 6	
" Subscriptions in Arrear, £491 0s. 0d., estimated to realise		330 0 0		330 0 0		330 0 0		330 0 0	
" Cash in hand		26 16 6		26 16 6		26 16 6		26 16 6	
" Stock of Paper		—		—		—		—	
		23,071 0 11		23,071 0 11		23,071 0 11		23,071 0 11	
Income for Year		756 15 6		756 15 6		756 15 6		756 15 6	
Add Transfer from Publication Fund		22,314 5 5		22,314 5 5		22,314 5 5		22,314 5 5	
" Life Composition Fees (two-thirds)		95 0 0		95 0 0		95 0 0		95 0 0	
Current Account at Bankers (overdrawn)		202 3 6		202 3 6		202 3 6		202 3 6	
" Herbert Spencer Bequest, unexpended		931 16 6		931 16 6		931 16 6		931 16 6	
" Balance		—		—		—		—	
" Loan, Chemical Council		1,200 0 0		1,200 0 0		1,200 0 0		1,200 0 0	
		22,409 5 5		22,409 5 5		22,409 5 5		22,409 5 5	
		£28,495 8 1		£28,495 8 1		£28,495 8 1		£28,495 8 1	
<b>PUBLICATIONS FUND.</b>									
To Excess of Assets over Liabilities as per last Balance Sheet		11,350 0 11		11,350 0 11		11,350 0 11		11,350 0 11	
Less Transferred to General Account		—		—		—		—	
" Uninvested Composition Fees		1,986 17 1		1,986 17 1		1,986 17 1		1,986 17 1	
		9,363 3 10		9,363 3 10		9,363 3 10		9,363 3 10	
		£29,007 0 11		£29,007 0 11		£29,007 0 11		£29,007 0 11	
<b>RESEARCH FUND.</b>									
To Sundry Creditors		632 0 0		632 0 0		632 0 0		632 0 0	
" Excess of Assets over Liabilities as per last Balance Sheet		14,706 18 8		14,706 18 8		14,706 18 8		14,706 18 8	
Add Excess of Income over Expenditure for year		66 1 2		66 1 2		66 1 2		66 1 2	
		14,771 19 10		14,771 19 10		14,771 19 10		14,771 19 10	
		£15,338 18 8		£15,338 18 8		£15,338 18 8		£15,338 18 8	



THE CHEMICAL SOCIETY. BALANCE SHEETS, 31ST DECEMBER, 1937

		SPECIAL PUBLICATIONS FUND.				SPECIAL PUBLICATIONS FUND.	
		1937		1936		1937	
		£	£	£	£	£	£
<i>Liabilities.</i>		<i>Assets.</i>					
1936	1937	To Amount prepaid for 1938					
£	£	£	£	£	£	£	£
10 5 0	10 5 0	1600 0 0	1600 0 0	By Investment as per Schedule (cost or value when acquired)	...	...	1600 0 0
174 14 9	174 14 9	525 5 10	525 5 10	" Cash at Bank	...	...	444 11 5
1932 12 1	1940 6 1	1940 6 1	1940 6 1				
---	103 18 1	103 18 1	103 18 1				
52 6 0	2044 4 2	2044 4 2	2044 4 2				
	<u>£2125 5 10</u>	<u>£2044 11 5</u>	<u>£2125 5 10</u>				
		SPECIAL LECTURES FUND.				SPECIAL LECTURES FUND.	
£	£	£	£	£	£	£	£
1088 8 7	1088 12 9	1088 12 9	1088 12 9	By Investment as per Schedule (cost or value when acquired)	...	...	1000 0 0
---	43 0 7	43 0 7	43 0 7	" Cash at Bank	...	...	112 9 4
21 16 10	1109 13 4	1109 13 4	1109 13 4				
	<u>£1066 12 9</u>	<u>£1112 9 4</u>	<u>£1066 12 9</u>				
		STAFF PENSIONS FUND.				STAFF PENSIONS FUND.	
£	£	£	£	£	£	£	£
907 14 0	907 14 0	907 14 0	907 14 0	By Investment as per Schedule (cost or value when acquired)	...	...	902 13 9
---	---	---	---	" Cash at Bank	...	...	5 0 3
907 14 0	907 14 0	907 14 0	907 14 0				
	<u>£907 14 0</u>	<u>£907 14 0</u>	<u>£907 14 0</u>				
		THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.				THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.	
£	£	£	£	£	£	£	£
1200 9 0	1163 16 4	1163 16 4	1163 16 4	By Investment as per Schedule (cost or value when acquired)	...	...	1101 7 11
---	52 12 11	52 12 11	52 12 11	" Cash at Bank	...	...	115 1 4
105 12 8	1216 9 3	1216 9 3	1216 9 3				
	<u>£1163 16 4</u>	<u>£1216 9 3</u>	<u>£1163 16 4</u>				

THE CHEMICAL SOCIETY. BALANCE SHEETS, 31ST DECEMBER, 1937.

		CENTENARY FUND.			
		1936		Assets.	
		£	s. d.		
1936	<i>Liabilities.</i>	1937	1936	1937	£ s. d.
—	To Excess of Income over Expenditure for the year ...	—	—	By Cash at Bank ...	260 6 9

THE HERBERT SPENCER BEQUEST.

		1936			
		£	s. d.		
£ s. d.	To Amount received from the Trustees ...	931	16 6	By Cash at Bank ...	231 16 6
—	" Balance unexpended at 31st December, 1936 ...	—	—	" " Cash on Deposit at Post Office Savings Bank ...	509 7 6
309 8 6	<i>Less Excess of Expenditure over Income for the year ...</i>	190	12 6		
		741	4 0		
		£741 4 0	£931 16 6		£741 4 0

SCHEDULE OF INVESTMENTS.

GENERAL PURPOSES.

Nominal Details.	Cost or Value when Acquired.		Market Value 31st December, 1937.	
	£	s. d.	£	s. d.
£787 London, Midland and Scottish Railway 4% Debenture Stock	839	3 7	818	9 7
£1520 14s. 5d. Cardiff Corporation 3% Stock, 1914/54	1650	0 0	1444	13 6
£1400 India 2½% Stock	1316	1 0	938	0 0
£2400 Bristol Corporation 2½% Debenture Stock, Bristol Dock Account	2070	2 0	2064	0 0
£2718 London, Midland and Scottish Railway 4% Preference Stock	3572	0 4	2224	13 2
£1200 Leeds Corporation 3% Stock	1143	1 0	1008	0 0
£1098 8s. 2d. Union of South Africa 3% Stock, 1954/64	1067	12 10	1041	9 11
£1200 London and North Eastern Railway 3% Debenture Stock	1033	11 0	942	0 0
£700 Canada 3½% Stock, 1930/50	704	8 6	714	0 0
£2529 6s. 9d. 5% Conversion Loan, 1944/64	2446	2 6	2896	1 10
£1100 5% ditto ditto	1045	0 2	1259	10 0
£600 4% Funding Loan, 1960/80	480	0 0	676	10 0
£12,926 9s. 0d. 3½% Conversion Stock 1961, or after	10,350	2 2	13,249	12 3
£308 7s. 0d. 3% Funding Stock 1959/69	299	11 5	301	8 3
	<u>£28,016</u>	<u>16 6</u>	<u>£29,578</u>	<u>8 6</u>

PUBLICATIONS FUND.

£5260 19s. 9d. 3½% Conversion Stock, 1961, or after	3645	12 8	5892	10 2
£3178 1s. 6d. 5% Conversion Loan, 1944/64	3199	18 7	3633	3 5
£817 F. & O. Steam Navigation Co. Deferred Stock	2060	0 0	898	14 0
£603 London, Midland and Scottish Railway 4% Guaranteed Stock	457	12 7	609	0 7
	<u>£9,363</u>	<u>3 10</u>	<u>£10,533</u>	<u>8 2</u>

RESEARCH FUND.

Nominal Details.	Value or Cost when Acquired.		Market Value 31st December, 1937.	
	£	s. d.	£	s. d.
£1000 London and North Eastern Railway 4% 2nd Guaranteed Stock	1010	0 0	895	0 0
£1034 Great Western Railway 2½% Debentures	1049	15 11	708	5 9
£1122 Metropolitan Water Board 3% "B" Stock	1002	16 9	1009	10 0
£1483 London, Midland and Scottish Railway 4% Debenture Stock	1508	3 6	1542	6 5
£806 Victoria 3% Stock, 1929/49	706	6 2	765	14 0
£2498 11s. 0d. 5% Conversion Loan, 1944/64	4267	4 10	5150	16 9
£6311 6s. 10d. 3½% Conversion Stock, 1961, or after	5131	10 10	6469	2 6
	<u>£14,675</u>	<u>18 0</u>	<u>£16,541</u>	<u>1 5</u>
<u>SPECIAL PUBLICATIONS FUND.</u>				
£2115 8s. 10d. 3½% Conversion Stock, 1961, or after	...	...	£1600	0 0
	<u>£2115</u>	<u>8 10</u>	<u>£1600</u>	<u>0 0</u>
<u>SPECIAL LECTURES FUND.</u>				
£1299 9s. 4d. 3½% Conversion Stock, 1961, or after	...	...	£1000	0 0
	<u>£1299</u>	<u>9 4</u>	<u>£1000</u>	<u>0 0</u>
<u>STAFF PENSIONS FUND.</u>				
£683 6s. 1d. 3½% Conversion Stock, 1961, or after	...	...	527	13 9
£571 17s. 1d. 5% Conversion Loan, 1944/64	...	...	376	0 0
	<u>£902</u>	<u>13 9</u>	<u>£903</u>	<u>13 9</u>
<u>THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.</u>				
£61 16s. 8d. 3½% Conversion Stock, 1961, or after	...	...	80	1 6
£1255 London, Midland and Scottish Railway 4% Debenture Stock	...	...	1051	6 6
	<u>£1101</u>	<u>7 11</u>	<u>£1368</u>	<u>10 6</u>

I have examined the above Balance Sheets and accompanying Income and Expenditure Accounts with the Books and Vouchers of the Society, and certify them to be in accordance therewith. I have also verified the Balances at the Bankers and the Investments.

23, QUEEN VICTORIA STREET, E.C.4.  
16th February, 1938.

W. B. KEENE  
Chartered Accountant.

Approved { GEORGE SEWTER  
H. D. K. DREW  
H. E. COX.