### ANNUAL GENERAL MEETING

THE Ninety-Eighth Annual General Meeting was held at Burlington House on Thursday, March 30th, 1939, the President, Professor F. G. Donnan, being in the Chair. The business portion of the meeting took place at 2.30 p.m.

The notice convening the meeting was read.

The Report of Council for 1938 (see pp. 682) was presented, and the Senior Secretary, who was then called upon by the President, said, in introducing the general sections of the Report, that the arrangement of the Report was similar to that adopted for the last few years, and that he need only draw attention to a few special features and add comments on developments which had taken place since the Report was issued.

The Committee appointed to consider means of increasing the membership of the Society [Section I (4)] has worked in close co-operation with the corresponding Committee of the Society of Chemical Industry, and joint recommendations on certain matters have been submitted to the two Councils.

In Section II (1) more extensive statistics have been given than in previous years. A noteworthy feature is that during the past six years there has been a progressive decline in the proportion of papers dealing with inorganic and physical chemistry in the Journal. This is believed to be due, not to any decrease in the total output of such papers in the British Isles, but to a larger proportion of them being published in other journals. If the sole result of this tendency were to be a saving in the publication expenses of the Society, it might be welcomed; but it will be realised that, if the Journal should become mainly a medium for the publication of papers on organic chemistry, it would become increasingly difficult to persuade workers in other branches of chemistry to give the support which they should to the Society.

The issue of Reprints of Lectures is a new service which has been introduced in response to several requests, and from the number of applications already received, it appears that this service is valued by many Fellows.

It is satisfactory to find that the enlarged Abstracts A III, covering physiology and biochemistry, have been well received both in this country and abroad, and that the interest taken in this publication by the Anatomical Society has already led to a further widening of the scope of the work of the Bureau of Chemical and Physiological Abstracts.

In Section II (4) it will be seen that an endeavour is being made to make the *Annual Reports* of greater interest to the non-specialist without detracting from their value to those requiring detailed summaries. This is not an easy matter, and we shall await with interest the Reports for 1938, which will be issued shortly.

Reference is made in Section V (3) and in the Annual Report of the Chemical Council (Appendix A) to the preparation of a scheme for further co-operation between the three Chartered Chemical Bodies. A complete new scheme has now been put forward by the Chemical Council as a basis for discussion, and is being examined by the Councils of the three bodies.

The question of obtaining increased accommodation for the Library and for administration purposes is being re-examined in relation to the requirements of other Societies in Burlington House, and it is hoped that under the leadership of the Royal Society it will soon be possible to take joint action on this pressing problem.

The Society has been obliged to give attention to means for safeguarding its property in the event of a national emergency. Certain irreplaceable books and documents have already been sent out of London, and arrangements have been made for providing such protection for the Library as is reasonably possible.

Preliminary arrangements for the Centenary celebrations to be held in April 1941 are now in hand, and the Organising Committee has appointed an Executive Committee to proceed with the work.

Fellows will have been pleased to learn that His Majesty the King has graciously consented to become the patron of the Society.

The scheme for Territorial representation on Council appears to have met the wishes of Fellows in the various constituencies with surprising exactness, in that the number of nominations put forward in five out of the six constituencies was identical with the number of vacancies.

The Annual Reports of the Bureau of Chemical and Physiological Abstracts and of the Joint Library Committee are printed as Appendix B and Appendix C respectively.

In Section VIII reference is made to Fellows who have represented the Society on other bodies and at public functions. The Council has expressed its cordial thanks to these Fellows and to those who have freely given their valuable services to the Society in various other capacities during the year (Section IX).

Finally, the Senior Secretary said that he wished on behalf of the Council to pay a tribute to the work which Mr. Carr and his staff had done for the Society during the year. Everyone realises that the business of the Society has been increasing in volume and complexity in recent years; but only the Officers can actually know the extent to which these developments have imposed additional work on the staff, or assess the magnitude of the effort which all members of the staff have made to deal with the situation. All of them have shown not only attention to duty, but a real devotion to the interests of the Society. The Senior Secretary was happy to state that the Council has recently been able to afford some relief to a seriously overworked staff by authorising the employment of an additional clerk; and he knew that all would welcome the action of the Council in conferring on Mr. Carr the more appropriate title of General Secretary and on Mr. H. J. Morris the title of Assistant General Secretary.

The Treasurer, on being called upon by the President, referred to the great loss of Mr. Emile Mond, who had filled the office of Treasurer for seven years, stating that it was particularly to be regretted that he was not there to present the accounts for 1938, as they showed a definite improvement over those of the previous year, mainly due to changes resulting from his foresight and wisdom in dealing with the finances of the Society.

The Treasurer then dealt with the Accounts in broad outline, and taking first the General Purposes Account, he pointed out that the deficit was £288, as against £757 in 1937. He then called attention to the innovation of including overhead charges against both the Journal and the Abstracts, a change which enabled the actual cost of the publications to be determined. Passing on to the Publications Fund, he referred to the chief items which had contributed to the decreased deficit, stating that this year the Abstracts had cost the Society £7204, as against £7665 last year, or, allowing for overheads, a saving of £881. The Journal had cost £915 more than last year, or £595, allowing for the same overhead charge last year, due to an increase of 104 pages and to the higher cost of paper.

He then referred to the two new Accounts which appeared for the first time, the Faraday Lecture Fund (see p. 704) and the Tilden Bequest. The latter is the residue of the estate of Lady Tilden, which has been divided equally between the Royal Society and the Chemical Society.

The Treasurer showed diagrams which indicated that the publications supplied to Fellows cost considerably more than the annual subscription received from them, and stated that this matter is engaging the attention of the Council. He also showed that the value of the Society's assets had increased, pointing out that the Society's greatest asset, the Library, is now insured for £29,200, as compared with £22,500 ten years ago, and that the market value of the investments had more than doubled since 1912. He stated that this increase was largely due to the inauguration of the Publications Fund some fifteen years ago by the then Treasurer, Professor J. F. Thorpe.

In conclusion, he stated that, though the Society's finances cannot be said to be in a satisfactory state until income balances expenditure without the aid of grants from outside sources, he was confident that the deliberations of the Chemical Council would result in a scheme whereby the Chemical Society will reach that very desirable and essential condition of balancing its accounts. Finally, the Treasurer expressed his thanks to the General Secretary and his staff for the assistance they had rendered to him.

The adoption of the Report of Council for 1938, including Statement of Accounts and Balance Sheets, was proposed by Professor A. Findlay, seconded by Dr. J. W. Baker, and carried unanimously.

The result of the election to vacanies on the Council for 1939 was declared as follows:

President: Sir Robert Robinson.

Treasurer: F. P. Dunn.

Honorary Secretary: G. M. Bennett.

Professor F. G. Donnan, as retiring President, becomes a Vice-President who has filled the office of President.

Vice-Presidents who have not filled the office of President: I. M. Heilbron, J. Kenyon, E. K. Rideal, S. Sugden.

Elected Ordinary Members of Council:

- (a) Constituency I. S.E. England.
  - E. J. Bowen (Oxford).
  - H. J. T. Ellingham (London).
- (b) Constituency II. Central and S.W. England and S. Wales.
  - H. T. S. Britton (Exeter).
  - J. E. Coates (Swansea).
  - E. L. Hirst (Bristol).
- (c) Constituency III. N.W. England, N. Wales and Isle of Man.
  - J. Kenner (Manchester).
  - A. R. Todd (Manchester).
- (d) Constituency IV. N.E. England.
  - H. L. Riley (Newcastle-on-Tyne).
- (e) Constituency V. Scotland.
  - A. Findlay (Aberdeen).

A vote of thanks to the Treasurer, Honorary Secretaries, Council, and Committees for their services during the year, proposed by Professor J. M. Gulland and seconded by Mr. William Macnab, was carried unanimously, and acknowledged by Dr. H. J. T. Ellingham.

On the motion of Dr. J. Kenyon, seconded by Professor H. T. S. Britton, Messrs. W. B. Keen & Co. were appointed Auditors for 1939.

The meeting then adjourned for tea.

On the resumption of the meeting at 4 p.m. the President presented the Longstaff Medal for 1939 to Professor I. M. Heilbron, and said that Professor Heilbron's interests had lain mainly in the field of those natural products which have included the higher terpenes and related compounds. He had studied the components of fish-liver oils, and investigated and solved the constitution of squalene, a triterpenic hydrocarbon obtained from the elasmobranch. His conclusions in this field were vindicated by Karrer's synthesis of squalene. Professor Heilbron had also made important contributions to the chemistry of vitamin A, and of the related carotenoid pigments. Particularly interesting in this connection was his work on the pigments of the algæ. Professor Heilbron had devoted much attention to the chemistry of ergosterol and its photochemical transformation products, and was responsible for many of the observations which led to the unravelling of the molecular structure of the antirachitic vitamin D. His work had thrown much new light on the chemistry of the triterpenes, a field of investigation in which he is now actively engaged. Professor Heilbron had been the leading exponent in this country of the microchemical methods and modern technique which have been largely responsible for the fundamental advances made in the organic chemistry of natural products in recent years, and the outstanding character of his school is recognised throughout the world.

In acknowledging the award, Professor Heilbron expressed his thanks to the President and Council for the great honour they had done him in conferring the Longstaff Medal on him, and thus having his name added to the list of those who, since the inception of the Medal nearly sixty years ago, had by their outstanding contributions added lustre to British

Chemistry. He realised all too well how far his own work fell short of the heights reached by those who preceded him on this honoured list, and he concluded that the Council, in the goodness of its heart, must either have awarded him the medal as compensation for having brought him from the sunny North to the grimness of the Metropolis, or possibly as an encouragement to further effort at the Imperial College. He desired to take the opportunity to pay tribute in the first place to his wife, who for so many years had borne with patience and understanding the peculiar temperament of the chemist; secondly, to his old friend and chief, Professor G. G. Henderson, to whom he owed so much; and last but not least he desired to place on record his deep appreciation of the loyal co-operation of his many colleagues and research students in the Universities of Liverpool and Manchester. It would have been impossible for him to have gained this honour without their generous and ever-willing support.

The Harrison Memorial Prize for 1938 was then presented to Mr. Alexander King by the President, who said that Mr. King had received his chemical training at the Imperial College, South Kensington, graduating as B.Sc. in 1929 and as M.Sc. in 1931. From 1930 to 1931, he had worked in the Physical Chemistry Institute of the University of Munich under Professor K. Fajans, and from 1931 to the present date held a post at Imperial College, where he is now a Lecturer. He also acts as Chief Consultant to Messrs. Universal Emulsifiers, Ltd., being in charge of technical research for this firm. A Leverhulme Fellowship was granted to him in the summer of 1938 as leader of a scientific expedition from Imperial College to Jan Mayen in the Greenland Sea. His original investigations on Adsorption and on Emulsions and other Colloid Topics form notable contributions to our knowledge of physical chemistry.

Mr. Alexander King in acknowledging the Prize expressed his sincere thanks for the honour that had been done him in awarding him the Harrison Memorial Prize. It was appropriate that it should be realised at this time that the prize was essentially a memorial and that the appalling loss of life and ability which took place during the Great War should be remembered. In receiving this prize he had to thank not only those who had so kindly awarded it to him, but also those who had helped him to gain it, namely, his teachers, amongst whom he was especially indebted to Professor Philip, and his students. Finally, he stated that he realised that the award of the Harrison Memorial Prize was not only a reward, but that it carried with it the obligation to justify the award by the results of future researches; this he would strenuously endeavour to do.

The President then delivered his Presidential Address entitled "The Rôle of Osmotic Pressure in the Development of Chemical and Biochemical Science," at the conclusion of which a vote of thanks to him for his services in the Chair during the past two years and for his Address, with the request that he would allow his Address to be printed in the Journal, was proposed by Professor W. E. Garner, seconded by Professor T. J. Nolan, and carried with acclamation, the President making brief acknowledgment.

### REPORT OF COUNCIL, 1938.

### I. FELLOWSHIP.

### (1) Fellowship Statistics.

The number of Fellows on the 31st December, 1937, was 3775. During 1938, 225 Fellows were elected and 18 reinstated, the corresponding figures for 1937 being 221 and 14, respectively. The Society has lost 61 by death, 111 by resignation and 47 by removal owing to non-payment of annual subscription, making a total loss of 219, as against 206 in 1937. The number of Fellows on the 31st December, 1938, was 3799, showing an increase of 24.

The names of those Fellows to whom the Council have conveyed congratulations on their completing 60 and 50 years of Fellowship have been published in the Proceedings.

During the year, 5 Honorary Fellows were elected, the number now being 34.

### (2) Honours.

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

T. H. Easterfield	K.B.E.
J. J. Fox	C.B.
J. J. Fox R. O'F. Oakley	O.B.E.
Robert Robinson	Kt.

The Council also conveyed congratulations to Professor G. Barger on his receiving the Davy Medal of the Royal Society, to Mr. B. Mouat Jones on his appointment as Vice-Chancellor of the University of Leeds and to Dr. Irvine Masson on his appointment as Vice-Chancellor of the University of Sheffield.

### (3) Deaths.

The Council have had to mourn the loss of two Honorary Fellows, Professor Georges Urbain (on 6th November) and Geh. Reg. Rat Professor Dr. G. Tammann (on 17th December).

By the death on 30th December of the Treasurer, Mr. Emile Mond, the Council have suffered the loss of a revered and honoured colleague who was beloved by all those with whom he came into contact and who, during the eight years he was Treasurer, rendered conspicuous service to the Society by his wisdom and prudence in guiding its financial affairs. The Council have also to express their deep regret at the death on 27th October of Sir Robert Mond, a great benefactor to the Chemical Council, who had been a Fellow of the Society for over 46 years.

The Council have to mourn the loss on the 25th August of Mr. John Greenaway who served the Society as Editor or Sub-Editor for a period of over 40 years and as Vice-President from 1924 to 1927, and record their high appreciation of the valuable services he has rendered to the Society.

Resolutions passed by the Council were communicated to Fellows at the Scientific Meetings, and the condolences of the Council have been conveyed to the relatives of those Fellows whom the Society has lost by death during the year. Memorial lectures or obituary notices have been arranged.

### (4) Means of Increasing Membership.

In December the Council appointed a Committee to consider the question of the recruitment of new Fellows, and it has been agreed that this Committee shall work in close co-operation with a Committee appointed by the Council of the Society of Chemical Industry for a similar purpose.

### II. PUBLICATIONS.

### (1) Journal.

The Journal for 1938 contains 2120 pages (2016), of which 1927 pages (1865) are occupied by 404 memoirs (425) and 27 notes (18). (The numbers in parentheses above are the corresponding figures for 1937.) There are also 8 lectures (86 pages), the Presidential Address (9 pages), Report of the Annual General Meeting (27 pages), Reports on Atomic Weights and Isotopes (12 pages), and Obituary Notices (59 pages). The 404 memoirs comprise 108 dealing with General, Physical and Inorganic Chemistry and 296 dealing with Organic Chemistry.

	1938.	1937.	1936.	1935.	1934.	1933.
Number of papers received	507	433	466	517	<b>504</b>	460
Number of papers declined	11	7	9	14	8	8
Number of memoirs published	<b>404</b>	425	414	434	443	388
organic chemistry	296	<b>3</b> 06	286	303	289	<b>24</b> 1
inorganic, physical chemistry, etc	108	119	128	131	154	147
Number of notes published	27	18	28	33	35	26
Size of Journal (pages)	2120	2016	1862	1907	2019	1653
Matter other than papers (pages)	193	151	97	144	93	107
Average interval between receipt and						
publication of papers (weeks)	9.3	9.2	10.0	9.8	9.5	9.4

During 1938, 507 papers were received; of these, 11 were declined, 229 were accepted without amendment, and 175 after amendment.

The average interval between receipt and publication of the papers is 9.3 weeks (9.2 weeks for 1937).

### (2) Reprints.

It has been decided to issue, as from the beginning of 1939, Reprints of Lectures (including the Presidential Address, opening contributions to discussions, report on atomic weights, etc.), appearing in the *Journal* in separate form to Fellows wishing to receive them in addition to, or instead of, certain other publications of the Society, and Fellows have been advised of this new service.

### (3) Abstracts.

The report of the Bureau of Chemical and Physiological Abstracts for 1938 is reproduced in full as Appendix B to this Report.

Following the agreement entered into between the Biochemical Society, the Physiological Society, the Society of Chemical Industry and this Society, during 1938 Physiological Abstracts, which hitherto had been issued as a separate publication, has been incorporated in Abstracts A III which has been entitled Physiology and Biochemistry. An agreement has since been entered into with the Anatomical Society to extend the scope of Abstracts A III to include certain papers dealing with anatomy. This change will come into force at the beginning of 1939.

### (4) Annual Reports.

The Publication Committee has had under consideration the question of making the Annual Reports of greater interest to the non-specialist without detracting from their value to those requiring detailed summaries. In future, each section will contain a short general introduction in language as little specialised as possible, indicating in general terms the directions in which fundamental progress has been made. Each of the specialised articles forming the main body of the report will have a brief introduction indicating the point of departure of the work described in it.

Volume XXXIV (1937), which was published in April, contained 492 pages compared with 469 pages in the previous volume.

### III. MEETINGS.

### (1) Scientific Meetings.

The Society has held 16 Scientific Meetings in London during 1938. These included 6 lectures, 4 organised discussions. At the other 6 meetings 19 papers were read and discussed.

30 Meetings held outside London included 24 lectures and 6 meetings for the reading of papers. Of these meetings, 18 were held jointly with local sections of other bodies. Fellows were invited to attend the series of 3 Bedson Lectures given at Newcastle-on-Tyne.

The Perkin Centenary Lecture, on "Sir William Perkin's Adventure and What Has Come of It," by Dr. Herbert Levinstein, was given under the auspices of the Society of Chemical Industry and the Chemical Society in the Hall of the Leathersellers' Company.

The Council have welcomed a suggestion from Local Representatives that official Scientific Meetings of the Society should be held from time to time outside London. It is proposed that two meetings, which the Officers of the Society would attend, should be arranged each year at centres to be determined following invitations from Local Representatives.

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

### (2) Anniversary Meetings.

A report of the Anniversary Meetings held in Manchester on the 31st March and 1st April appeared in the *Journal* and *Proceedings* for April. The cordial thanks of the Council were conveyed to all those responsible for the admirable arrangements that were made. These included the Annual General Meeting, the Presidential Address, the Anniversary Dinner, the Pictet Memorial Lecture, a Reception by the University of Manchester, and Visits to Imperial Chemical Industries, Ltd., at Blackley and Northwich and to the Shirley Institute.

### IV. LIBRARY.

The Report of the Joint Library Committee for 1938 is printed as Appendix C to this Report.

### V. OTHER ACTIVITIES.

### (1) Grants for Research.

Eighty-five applications for Grants amounting to £967 for research were received. The list of grants made, amounting to £695 8s., appeared in the *Proceedings* for December.

The Council has expressed its thanks to Dr. Geoffrey Martin for presenting certain silicon compounds which have been placed at the disposal of the Research Fund Committee.

### (2) Longstaff Medal and Harrison Memorial Prize.

The Council awarded the Longstaff Medal for 1939 to Professor I. M. Heilbron. The Harrison Memorial Prize for 1938 has been awarded by the Selection Committee to Mr. Alexander King. The presentation of the Longstaff Medal and of the Harrison Memorial Prize will be made at the Annual General Meeting of the Society on the 30th March, 1939.

### (3) General Services.

In the last report it was mentioned that the Chemical Council was exploring the possibility of introducing a general scheme for co-ordinating some of the services rendered to Chemists by the three Constituent Bodies. In June a "Scheme for the further co-ordination of the services of the Chemical Society, the Institute of Chemistry and the Society of Chemical Industry" was put forward but was not found acceptable to all three Councils of the Constituent Bodies. It is understood that a new scheme is in course of preparation.

### (4) Accommodation.

In the Report of Council for 1937 it was stated that it was impossible to accommodate any more books in the library, and that the possibility of using the Meeting Room for library and administration purposes had been considered. During the year the Council of the Royal Society consulted the Societies occupying rooms in Burlington House as to whether the accommodation provided is adequate for their needs, with a view to taking further action in the cases where more accommodation is required. The matter is still under consideration. In the meantime, as a temporary measure, the Council gratefully accepted an offer to store free of charge for a limited period a number of the less used volumes of the library.

### (5) Register of Chemists.

The Council decided to assist the Council of the Institute of Chemistry in the preparation of a Register of Chemists whose services would be available in the event of a national emergency. A notice was inserted in the *Proceedings* for October inviting Fellows who wished their names placed on the list to communicate with the Registrar of the Institute of Chemistry or with the Assistant Secretary of the Chemical Society.

### (6) Air-Raid Precautions.

A Committee has been appointed to consider what steps the Society should take for the preservation of its more valuable possessions and for the maintenance of its services in the event of a national emergency.

### (7) Centenary Celebrations.

As stated in the Report of Council for 1937, the Society will complete the first hundred years of its existence in 1941. The Celebrations will be held during the third week of April 1941, and the XIth International Congress of Chemistry will immediately follow the Celebrations. The list of Fellows serving on the General Committee appeared in the *Proceedings* for January 1939. This Committee was given power to add to its number and to appoint Sub-Committees. Fellows will be kept informed from time to time of the arrangements that are being made.

### VI. ADMINISTRATION.

### (1) Personnel of Council.

The Council decided that the President elected to office in 1939 should preside at the Centenary Celebrations of the Society to be held in April 1941, and in December nominated Professor Robert Robinson for election to this office.

Professor I. M. Heilbron was co-opted in October a Member of Council in accordance with the special provision contained in Bye-Law 19.

In December the Council accepted with deep regret the resignation of Dr. H. J. T. Ellingham from the office of Honorary Secretary as from the date of the next Annual General Meeting.

The Council received with regret in October the resignation of Professor R. P. Linstead from the office of Elected Member of Council on his appointment to the Chair of Chemistry at the University of Sheffield.

Mr. F. P. Dunn accepted the invitation of the Council to act as Deputy Treasurer during Mr. Mond's illness.

### (2) Constitution of the Council and the Election of Fellows.

In the early part of the year the Council considered various proposals affecting the constitution of the Council, including a scheme for territorial representation on Council, and the suggestion that the power of electing Fellows should be exercised by the Council. In March Fellows received particulars of these proposals, which necessitated various changes in the Bye-Laws, and, in response to the invitation of the Council, recorded their opinion by postal vote almost unanimously in favour of the proposals. At the Annual General Meeting held in Manchester on 31st March the new Bye-Laws were adopted unanimously. The new scheme for territorial representation on Council will come into operation in 1939. Since June elections to the Fellowship have been conducted by the Council.

### (3) Local Representatives.

During the year the Council have accepted with much regret the resignations of Professor F. Challenger (Leeds), Dr. S. Glasstone (Sheffield), and Dr. R. A. Morton (Liverpool), and have expressed their high appreciation of the valuable services rendered by them to the Society. Dr. A. McGookin was appointed Local Representative for Liverpool and the question of filling the other two vacancies is under consideration. The Council are glad to announce that Dr. T. Iredale has accepted an invitation to act as Local Representative for Australia.

A meeting of Local Representatives was held in Manchester on 31st March, and various suggestions were referred to Council for consideration.

### (4) Staff.

In December the Council changed the official title of Mr. S. E. Carr to General Secretary and appointed Mr. H. J. Morris to the new office of Assistant General Secretary.

### VII. FINANCE.

### (1) Payment of Annual Subscription in Australian and New Zealand Currencies.

Following the practice of the Institute of Chemistry and the Society of Chemical Industry regarding their members, the Council proposed that Fellows resident in Australia and New Zealand should be allowed to pay their annual subscription to the Society in the currencies of these two Dominions. This proposal was confirmed by Fellows at an Extraordinary General Meeting in October and Fellows resident in these two Dominions have been informed that they may pay their annual subscription direct to the Society's Bankers in the currency of their own Dominion. This will represent a small loss of income, but it is hoped that this may be offset by an increase in Fellowship.

### (2) Contributions.

The Council gratefully acknowledge the following substantial contributions which have been received towards the cost of the Society's publications for 1938:

£600 from the Government Publications Grant (through the Royal Society). £1150 from the Chemical Council.

The following donations have been received from Fellows in commemoration of completing their 50 years of Fellowship:

				£40
Mr.	D. A.	Griffith	•••••	£5

A contribution of £50, sent with the approval of the Subscribers, and representing part of the balance remaining over from the sum collected by the Local Committee in Manchester for the Anniversary Meetings in 1938, has also been received. These sums amounting to £95 have been placed to the Centenary Fund, and the Council record their sincere thanks for these generous contributions.

The Council have also recorded their high appreciation of the generous action of the following Fellows who again subscribed to the Publications Fund:

Mr. P. Appleyard, Dr. P. K. Dutt, Dr. J. A. N. Friend, Professor W. E. Garner, Mr. F. W. Kirkbride, Professor W. H. Lewis, Mr. Emile Mond, Professor D. H. Peacock, Professor R. H. A. Plimmer, Mr. W. G. Polack, Mr. J. E. B. Price, Sir David Rivett, Dr. H. G. Rule, Mr. F. C. Smith, Professor A. Stansfield, Major R. B. Turbutt, and Mr. G. W. Young;

also to Messrs. B. H. Bowles, A. Bracher, C. A. Buckmaster, A. J. Chapman, G. A. K. Dalrymple, F. P. Dunn, H. W. Keenan, Hugh Main, and R. Taylor, and to Mrs. Dent, Mrs. Watts, and the British Xylonite Co., for presenting volumes of the Society's publications, and to Dr. O. Rosenheim for presenting a bronze medal of Paul Karrer.

The Council are gratified to report that in November they received from the Managers of the Royal Institution, through Sir Robert Robertson, the sum of £369 4s., representing the residue of a fund collected some years ago by a Committee arranging the Faraday Benzene Centenary Celebrations, such sum to be used in connection with the Faraday Lectureship and Medal. This sum has been invested, and a Faraday Lecture Account has been opened.

### (3) Honorary Auditors.

Since 1903, when Chartered Accountants were appointed to audit the Society's Accounts, the Honorary Auditors have not had to assume final responsibility for the correctness of the Accounts. The Council's proposal to discontinue the appointment of Honorary Auditors was approved by Fellows at the Annual General Meeting in Manchester.

### (4) Insurance against Accidents.

The Council have covered by insurance against accident and against Third Party Risk their common law liability to the senior members of the staff not at present coming under the Workmen's Compensation Act, and have also covered against Third Party Risk anyone visiting the Society's Apartments in Burlington House.

### VIII. RELATIONS WITH OTHER BODIES.

### (1) Chemical Council.

Reference has been made above to the proposed scheme of co-operation between the three Constituent Bodies. The third Annual Report of the Chemical Council is reproduced in Appendix A.

### (2) Representatives of the Society on other Bodies.

During 1938 the Society was represented as follows:

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Bristol University Court:
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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.

Bureau of Chemical and Physiological Abstracts:
Dr. C. W. Davies, Mr. F. P. Dunn, Dr. G. A. R. Kon, Professor R. G. W. Norrish, and the Treasurer, ex-officio.

Chemical Council:

Professor F. G. Donnan, Professor I. M. Heilbron, 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.

18th Congrès de Chimie Industrielle, Nancy, 22nd September-2nd October: Mr. W. A. S. Calder.

Franklin Institute (Philadelphia, 19th-21st May). Dedication and Unveiling of a statue of Franklin: Sir James Irvine.

14th International Congress on Documentation, Oxford, 21st-26th September: Mr. F. W.

Xth International Congress of Chemistry, Rome, 15th-21st May: Professor G. Barger, Dr. F. H. Carr, Professor F. G. Donnan, Dr. J. J. Fox, Professor C. N. Hinshelwood, Professor C. K. Ingold, Mr. Emile Mond, Sir Gilbert Morgan, Sir Robert Robertson.

Ramsay Dinner, Glasgow, 2nd December: Professor G. Barger.

Réunion Internationale pour la Commemoration de la Découverte du Radium, des Electrons, des Rayons X et des Ondes Hertziennes, Paris, 23rd-30th November: Dr. F. A. Paneth. Rubber Technology Congress, London, 23rd-25th May: Mr. B. D. Porritt. Société Chimique de Pologne; IVth Congrès de la Chimie Pure et Appliquée and Centenary

of the death of Jedrzej Sniadecki, Wilno, 29th June-2nd July: Professor R. Truszkowski.

### IX. ACKNOWLEDGEMENTS.

The Council express their cordial thanks to the many Fellows who have freely given their valuable services to the Society during the year, including Local Representatives, those serving on Committees, refereeing papers for the *Journal*, contributing to the *Annual* Reports, delivering lectures, opening discussions and reading papers.

### APPENDIX A.

### THIRD ANNUAL REPORT OF THE CHEMICAL COUNCIL.

In submitting its Third Annual Report, the Council would recall that it was constituted with the object of raising and administering a fund for the purpose of meeting the cost of chemical publications, of promoting research, of maintaining the Library of the Chemical Society, and eventually of providing adequate accommodation, also of co-ordinating the activities and administration of the Contributing Bodies in relation to the above object and purposes.

The Second Annual Report published on 6th December, 1937, contained the complete list of contributors to 22nd November, 1937.

No further appeal has been issued, but a number of additional contributions, which the Council acknowledges with gratitude, are recorded with the Financial Statements.

The Council will consider the question of making a further appeal for the fund in the early future, but, in the meantime, feels compelled to repeat the opinion, expressed in the Second Annual Report, that the cost of chemical publications must still be met largely by chemists themselves, and that every chemist, whether he wishes to possess the publications or not, should help in defraying the cost of their production.

The efforts of the Council during the past year have been mainly devoted to the evolution of a scheme, the object of which is to distribute the burden of the cost of publications more equitably over the membership of the three Chartered Chemical Bodies.

A scheme was prepared, as a basis for discussion, which aimed at raising funds for the publications of the Chemical Society and the Society of Chemical Industry. The Council held that a chemist could not keep up-to-date without the literature of those Societies, and suggested that every member of each of the three Constituent Bodies should eventually pay the same annual subscription, in return for certain privileges, in the form of publications.

The Council realised that there were likely to be difficulties in reconciling the views of the three Bodies, and possibly even the views of members of the Councils of each Body individually; but asked that all concerned would endeavour, so far as was possible, to maintain a broad view of the matter, and to support the efforts of the Council to solve the problem.

It was emphasised that the scheme was submitted as "a basis for discussion," and in the hope that something definite and practical might be evolved.

As an outcome of the consideration of the scheme by the Councils of the Constituent Bodies—and it is to be noted that as yet decisions have been taken by the Councils as representing the members and not by the members themselves—it was eventually found that important practical considerations necessitated a further review of the subject by the Chemical Council.

The Council has continued to endeavour to be of use to the three Constituent Bodies by stimulating collaboration in matters of important detail.

The problem of centralising routine office work has been discussed. If any centralisation of offices should become practicable in the future, a common addressing system might be brought into operation, but it is held to be essential that all such work should be carried on in the same place as the administrative work. Consideration has been given to the question of avoiding the duplication of wrappers for the distribution of the publications of the two publishing Societies; but no such scheme would be possible unless centralisation of administrative work could be effected.

The Council has continued to negotiate contracts for printing and paper supplies.

Loans have been advanced to both Societies to meet accounts for early deliveries of paper in bulk. Grants have been made towards the increasing cost of their publications, and the Council has also agreed to contribute £500 towards the cost of the Collective Index of the Bureau of Abstracts.

The Council has also dealt with matters referred to it by the Joint Library Committee, and has provided for the representation thereon of the various contributing Societies.

The Joint Library Committee for the ensuing year will be constituted as follows:

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Association of British Chemical Manufacturers:
   Dr. F. H. Carr.
Biochemical Society:
   Dr. W. Robson.
Faraday Society:
   Prof. J. R. Partington.
Institute of Brewing: Mr. H. W. Harman.
Institute of Chemistry:
Prof. H. V. A. Briscoe, Mr. H. W. Cremer, Dr. J. J. Fox, Dr. E. Vanstone.
Society of Chemical Industry:
   Dr. J. B. Firth, Dr. L. A. Jordan, Mr. A. A. McCulloch.
Society of Dyers and Colourists:
   Mr. J. Blair.
Society of Public Analysts:
   Dr. C. Ainsworth Mitchell.
Chemical Society:

Prof. A. J. Allmand, Prof. H. Bassett, Dr. O. L. Brady, Prof. J. W. Cook, Prof. C. H. Desch, Mr. M. B. Donald, Mr. F. P. Dunn, Dr. H. J. Emeléus, Dr. C. F. Goodeve, Prof. C. R. Harington, Dr. T. A. Henry, Dr. E. W. McClelland, Dr. E. E. Turner, Dr. J. C. Withers.
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The contributions of the three Chartered Bodies towards the maintenance of the Library during 1938 were calculated on the respective membership proportions determined in 1937, viz., the Chemical Society £406 14s. 2d., the Institute of Chemistry £718 5s. 4d., and the Society of Chemical Industry £409 15s. 6d.

The Council records with deep regret the death of Sir Robert Mond, F.R.S., a very generous contributor to the fund.

In accordance with the provisions of the constitution, Sir Robert Pickard, F.R.S., who had been Chairman of the Council since its formation, resigned from his representation of the Society of Chemical Industry, and consequently the Chairmanship of the Council.

The Council recorded its warm appreciation of the services rendered by Sir Robert as Chairman, and of his endeavours to bring about closer co-operation between the various Bodies concerned with Chemistry, for the good of the science and the profession. The members of Council, in expressing their regret on his retirement, hoped that it would not be long before he was again associated with them in their work.

Mr. J. Arthur Reavell, also representing the Society of Chemical Industry, retired from the Council, in consequence of his having ceased to be a member of the Council of the Society.

The vacancies thus caused have been filled by the appointment of Mr. C. S. Garland and Mr. H. V. Potter.

Dr. Leslie H. Lampitt has been appointed Chairman in succession to Sir Robert Pickard; Mr. Davidson Pratt continues as Vice-Chairman; Professor Jocelyn F. Thorpe as Honorary Treasurer, and Mr. Richard B. Pilcher as Honorary Secretary of the Council.

The Council is indebted to Mr. F. P. Dunn for very helpful advice in matters relating to paper supplies and printing, and acknowledges with appreciation the continued honorary services of the Registrar and Secretary, and of the staff of the Institute of Chemistry.

LESLIE H. LAMPITT.

Chairman.

30, Russell Square, London, W.C. 1. 26th January, 1939.

### APPENDIX B

## REPORT OF THE BUREAU OF CHEMICAL AND PHYSIOLOGICAL ABSTRACTS FOR 1938.

During the year seven meetings of the Bureau were held, as well as a meeting of the Collective Index Sub-Committee and two meetings each of the A III Abstracts Advisory Sub-Committee and the B Abstracts Sub-Committee.

The Bureau desires to place on record its deep sense of the loss it has suffered through the death of Mr. Emile Mond, Hon. Treasurer of the Chemical Society. The news of the death of Mr. A. J. Greenaway, who had been a member of the Bureau since its inception, and retired only at the end of 1937, was also received with great regret.

Dr. C. W. Davies has been appointed by the Chemical Society to replace Dr. Ellingham as a member of the Bureau and as convenor of the A I and A II Sub-Committee; Mr. H. W. Cremer takes the place of Dr. Carr as a representative of the Society of Chemical Industry and member of the B Sub-Committee.

Assistant Editors.—Dr. E. H. Rodd has resigned from his post as Assistant Editor in Section A II, and Dr. Harold Burton has been appointed in his place.

During the severe illness of Prof. H. M. Dawson, his editorial duties have been undertaken by Dr. F. L. Usher.

Dr. V. J. Woolley has been appointed to take charge of the Pharmacology and Toxicology Section of Abstracts A III.

Section A III.—The inclusion of physiological abstracts in the Biochemistry Section commenced smoothly in January last. So far as the Bureau is able to judge from the amount of subscriptions received for this Section, the combined abstracts are highly appreciated.

The Editor wishes to record his high appreciation of the enthusiastic help he has received during 1938 from the sub-editorial and clerical staff, especially in connexion with the transition stages of Section A III.

With the approval of the Societies constituting the Bureau, arrangements have been made with the Anatomical Society of Great Britain and Ireland whereby a larger number of abstracts of papers on anatomical subjects will be included as from the beginning of 1939, under the charge of Professor J. D. Boyd. The Anatomical Society has undertaken to provide the sum of £100 per annum to defray the cost of printing these extra abstracts, and it has been agreed to supply members of that Society with Section A III of the Abstracts at the price of 30s. per annum in place of 65s.

Abstracts.—The total number of abstracts published during 1938 was 41,677, as compared with 35,939 in 1937, an increase of 5638. The appended table shows the number of abstracts and pages printed in each quarter, the figures for 1937 being included for comparison.

		A I.				A II.			
		193	37.	19	38.	193	37.	19	38.
		No. of		No. of		No. of		No. of	
		Abs.	Pages.	Abs.	Pages.	Abs.	Pages.	Abs.	Pages.
1st quarter	•••••	1912	156	2075	164	733	130	683	120
2nd ,,	• • • • • • • • •	2376	178	2065	170	801	138	773	132
3rd ,,	• • • • • • • • •	1937	150	1778	150	781	126	811	134
4th ,,	•••••	1864	152	1900	160	750	136	714	132
		8089	636	7818	644	3065	530	2981	518
Average leng	th per								
abstract	• • • • • • • • • • • • • • • • • • • •	0·158 C	Column	0.165 (	Column	0.346 (	Column	0.347	Column
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				III.			В.		
		193			38.	19	В. <b>37.</b>	19	<b>3</b> 8.
		193 No. of				19 No. of	37.	19 No. of	
				19	38. Pages.				38. Pages.
1st quarter		No. of	37.	19 No. of		No. of	37.	No. of	
2nd ,,		No. of Abs. 1458 1821	Pages. 108 138	No. of Abs.	Pages. 252 294	No. of Abs. 3925 4424	37. Pages. 298 328	No. of Abs. 4010 4869	Pages. 326 414
2nd ,, 3rd ,,	•••••••	No. of Abs. 1458 1821 1598	Pages. 108 138 122	19 No. of Abs. 2897	Pages. 252	No. of Abs. <b>3925</b>	Pages. 298 328 360	No. of Abs. 4010 4869 4439	Pages. 326 414 368
2nd ,, 3rd ,,		No. of Abs. 1458 1821	Pages. 108 138	No. of Abs. 2897 3490	Pages. 252 294	No. of Abs. 3925 4424	37. Pages. 298 328	No. of Abs. 4010 4869	Pages. 326 414
2nd ,, 3rd ,,	•••••••	No. of Abs. 1458 1821 1598	Pages. 108 138 122	19 No. of Abs. 2897 3490 2909	Pages. 252 294 228	No. of Abs. 3925 4424 4555	Pages. 298 328 360	No. of Abs. 4010 4869 4439	Pages. 326 414 368
2nd ,, 3rd ,,		No. of Abs. 1458 1821 1598 1508	Pages. 108 138 122 136	19 No. of Abs. 2897 3490 2909 3658	Pages. 252 294 228 292	No. of Abs. 3925 4424 4555 5496	Pages. 298 328 360 428	No. of Abs. 4010 4869 4439 4606	Pages. 326 414 368 404

Of the 17,924 B Abstracts, 11,754 were from journal literature and 6170 from patents. The increase noted above in the average length of the B Abstracts is due to the fact that an increased proportion of these was from the journals compared with patents (figures for 1937: 10,883 and 7517, respectively). There is very little change in the average length of the other Sections, but the doubling of the size of Section A III as a result of the inclusion of Physiological Abstracts is noteworthy.

Annual Index.—The joint Annual Index to the Abstracts for 1937 covered 823 pages, an increase of 29 pages over the 794 of the 1936 Index. The cost of printing the Index was £1678 14s. 9d. and of the paper (including handling) £318 19s. 6d. (corresponding figures for the 1936 Index were £1539 7s. 11d. and £231 11s. 9d.). The total number of entries in the Index was 119,070 compared with 113,160 in 1936.

Quinquennial Index.—The Bureau received and adopted a report of a Sub-Committee appointed to consider the question of the next Collective Index to the Abstracts, and recommended to the two Societies that, in view of the fact that a ten year's Index starting from 1933 would be unduly costly and cumbersome, and that the beginning of 1938 marked the inclusion of Physiological Abstracts, a Quinquennial Index covering the period 1933–1937 should be produced provided sufficient support was received from the members.

It was recommended that the price to be charged to members applying (with deposits of 10s.) before printing commences be £3 10s., and after that date £4 (postage extra in each case), and that the price to non-members be £8 and £10, respectively). The two Councils have approved these recommendations, and have promised their financial support; in addition, the Bureau is glad to record that the Chemical Council has also promised a contingent contribution of £500 towards the cost of the work.

The response to the notice circulated to members and subscribers inviting subscriptions has been satisfactory, 482 members having ordered the Index and 101 copies having been subscribed for in advance by non-members.

It is hoped to commence the printing of the Index in the summer.

A room adjoining the Indexing office of the Bureau in Charing Cross Road has been secured for the housing of the Quinquennial Indexing department at the rent of £130 per annum and the work is proceeding satisfactorily.

Indexing Staff.—Miss Tanner, who was engaged in 1937 as assistant to Miss Le Pla, has been formally appointed Assistant Indexer.

An additional staff has been engaged to deal with the extra work connected with the Quinquennial Index.

Decennial Index, 1923-1932.—Twenty-two more copies were sold during the year 1938, making a total of 847, and a further sum of £60 each has been refunded to the Chemical Society and to the Society of Chemical Industry.

Abstracts B.—The Council of the Society of Chemical Industry requested the Bureau to report on means whereby economy in the B Abstracts might be effected. The matter was referred to the B Abstracts Sub-Committee, who reported certain directions in which small economies could be effected, but pointed out substantial savings appeared to be possible only by fundamental changes or by collaboration with other organisations that produce abstracts covering similar lines.

The Council of the Society of Chemical Industry has requested the Bureau to report further on the matter.

Status of the Bureau.—In view of the developments in its activities, the Bureau suggested to the Societies that some method for unifying the financial control should be considered. With the approval of the Councils, a Sub-Committee consisting of the Chairman, Dr. L. H. Lampitt and Professor B. A. McSwiney, with Dr. C. W. Davies, Dr. G. A. R. Kon, Professor R. G. W. Norrish (representing the Chemical Society), Mr. F. P. Dunn, Dr. L. A. Jordan (representing the Society of Chemical Industry), and Professor J. H. Gaddum (representing the Physiological Society), has been appointed to examine the suggestions.

During September Mr. F. P. Dunn and Mr. W. Macnab attended the Fourteenth International Conference of the International Federation for Documentation, at Oxford, as representatives of the Bureau.

### APPENDIX C

### REPORT OF THE JOINT LIBRARY COMMITTEE FOR 1938.

Excluding the evenings on which meetings of the Chemical Society were held, there were 8507 attendances during the year, as compared with 8554 in 1937. Of these 4803 were made by Fellows of the Chemical Society, and 3704 by Members of other Constituent and Contributing Bodies, as against 4988 and 3566 in 1937.

The number of books borrowed was 5948, against 5666 in the previous year; of these 1697 were issued by post, compared with 1468 in the preceding year.

The Library telephone facilities are still extensively used, and the incoming calls included 1057 enquiries which necessitated reference to books in the Library, as against 941 the previous year.

The additions to the Library comprise:

250 books, of which 70 were presented, 744 volumes of periodicals and 283 pamphlets, as against 274 books, 738 volumes of periodicals and 201 pamphlets last year.

			Anaiysis.			
			Books	Books	Volumes of	· · ·
		Attendances.	borrowed.	added.	periodicals.	Pamphlets.
1938	•••••	8507	<b>5948</b>	250	744	283
1937	***************************************	8554	5666	$\bf 274$	738	201

The total number of volumes added during the year was 994. The Library now contains 42,672 volumes, consisting of 12,801 books and 29,871 bound volumes of periodicals.

The Committee wishes to record its grateful appreciation of the gifts received from Fellows and others during the year.

The question of Library accommodation continues to be a most urgent one. (See Section V, item 4.)

### APPENDIX D

### LECTURES AND DISCUSSIONS.

Lectures given in London.

27th January, Sixth Pedler Lecture, entitled "Synthesis of Polyenes," by Professor Dr. Richard Kuhn; 17th February, Franklin Memorial Lecture, by Professor A. Findlay; 5th May, on "Nucleic Acids," by Professor J. M. Gulland; 17th November, on "Some Carbohydrate Problems," by Professor W. N. Haworth; 24th November, Public Lecture under the auspices of the Society of Chemical Industry and the Chemical Society to commemorate the Centenary of the birth of Sir William Henry Perkin, by Dr. H. Levinstein; 15th December, Seventeenth Faraday Lecture, entitled "Monolayers on Solids," by Dr. Irving Langmuir.

### Discussions held in London.

3rd February, on "Associated Liquids," opened by Professor J. D. Bernal; 17th March, on "Electron Diffraction and Surface Structure" (Joint discussion with the Physical Society), opened by Professor G. I. Finch; 19th May, on "Organic Intermolecular Complexes," opened by Professor G. M. Bennett; 1st December, on "Aggregation of Ions in Paraffin-chain Salt Solutions," opened by Dr. G. S. Hartley.

### Lectures given outside London.

Aberdeen. At Marischal College (Joint meeting with the Institute of Chemistry): 4th February, on "Alchemy in Scotland," by Professor John Read.

Birmingham. At the University, Edgbaston (Joint meetings with the Birmingham University Chemical Society): 7th February, on "The Thermal Decomposition of Solids," by Professor W. E. Garner; 14th February, on "Sterols, Vitamin D, and Related Hormones," by Professor I. M. Heilbron.

Edinburgh. At North British Station Hotel: 14th March (Joint meeting with the Institute of Chemistry and the Society of Chemical Industry): on "Multiple Links," by Professor N. V. Sidgwick; at the University: 1st November (Joint meeting with the University of Edinburgh Chemical Society), on "Plastics and Polymerisation," by Professor R. G. W. Norrish.

· Glasgow. At the Royal Technical College; 18th November (Joint meeting with the Local Sections of the Institute of Chemistry and the Society of Chemical Industry): on "Heavy Water and its Use as a Chemical Reagent," by Dr. J. A. V. Butler.

Leeds. At the University: 11th November, on "The Structure of Films Adsorbed at Solid Surfaces," by Dr. D. H. Bangham.

Liverpool. At the University: 28th January, on "The Chemical Structure and Physiological Action of Drugs," by Dr. H. R. Ing; 7th November, on "Recent Progress in the Chemistry of the Starches," by Professor E. L. Hirst.

Manchester. At the University: 31st January, Sixth Pedler Lecture, entitled "Synthesis of Polyenes," by Professor Dr. Richard Kuhn (repeated); 8th February (Joint meeting with the Manchester Section of the Institute of Chemistry and the Manchester University Chemical Society), on "The Significance of Synthetic Oestrogenic Agents," by Professor E. C. Dodds; at the Central Library: 1st April, Pictet Memorial Lecture, by Professor G. Barger; at the College of Technology, 15th November (Annual Conjoint Meeting of Manchester Chemical Societies arranged by the Manchester Literary and Philosophical Society), on Camouflage in Nature and in War," by Dr. H. B. Cott.

Newcastle and Durham. Bedson Lectures at King's College, Newcastle-on-Tyne:

4th February, on "Aliphatic Diazo Compounds," by Professor J. Kenner; 19th May, on "The Impact of Chemistry on Biological Science," by Sir Henry H. Dale; 28th October, on "Statistics in Chemistry and Physics," by Professor Max Born.

North Wales. At the University College of N. Wales, Bangor (Joint meetings with the University College of North Wales Chemical Society): 10th February, on "Some New Aspects of the Organic Chemistry of Nitrogen," by Professor G. R. Clemo; 25th November,

on "The Origins of the Atomic Theory," by Professor J. R. Partington.

Nottingham. At the University College, University Park (Joint meetings with the University College of Nottingham Physical and Chemical Society): 20th October, on "The Chemistry of Podocarpic Acid," by Dr. W. F. Short; 24th November, on "Some Chemical Aspects of a Widespread Phenomenon—Biological Methylation," by Professor F. Challenger.

Sheffield. At the University: 18th February, on "Multiple Links," by Professor N. V.

Sidgwick.

South Wales. At the University College of S. Wales and Monmouthshire, Cardiff (Joint meetings with the Cardiff and District Section of the Institute of Chemistry): 11th March, on "Strong Electrolytes," by Dr. C. W. Davies; 28th November, on "Some Topics in Inorganic Chemistry," by Professor W. Wardlaw; (Joint meeting with the Chemical and Physical Society of the University College of S. Wales and Monmouthshire), 29th April, on "Some Recent Developments in the Reactions of Surfaces," by Professor E. K. Rideal; at the Technical College, Cardiff, 26th October (Joint meeting with the Cardiff Technical College Chemical Society): on "Optical Activity as a Guide to Reaction Mechanism," by Dr. J. Kenyon; at the University College, Swansea (Joint Meetings with the University College of Swansea Chemical Society): 4th February, on "Structural Crystallography and Chemistry," by Dr. E. G. Cox; 10th November, on "Chemical Carcinogenic Agents," by Professor J. W. Cook.

INCOME AND EXPENDITURE GENERAL PURPOSES ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1938.

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Expenditure.	By Administratic Office Salari Superamuna House Expe Accountants Miscellanco Postages Miscellanco	Less Transfer to Publications and Library: Journal Abstracts AI, A II	" Interest on Bank Overdraft
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1938	\$\mathcal{E}\$         \$\mathca	8994 13 0 8674 13 0 8674 13 0 8994 13 0 896 17 4 896 17 4 48 8 8 8	£10,420 14 2
Income.	To Life Composition Fees (£63 0s. 0d.), one-third as Income	Less amount included in last year's Income, being valuation of Arrears as per last Balance Sheet	
	£ \$. d. To 47.10 0 "."	04408 0	

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1938.

	1938	£ 8. d. £ 8. d.	1159 19 6 85 12 6 38 3 8	4002 2 0 43 12 9	15 0 10 602 14 11 168 3 0	354 7 9 11 16 1 320 0 0 6601 12 0		18213	•		876 17 0	18 189 10 10	01 01 701'012
	Expenditure.	By Expenses on account of Journal:	Editorial Salaries Superanuation Rdifforial Postaces	Frinting and Paper Banding—Fellows	::	克雷斯	Expenses on account of Abstracts A I, AII: Editorial Salaries	es	Distribution—Fellows Distribution—Fellows Do. Subscribers Miscellaneous Overhead Expenses (proportion)	" Agreed contribution to Abstracts A III Reserve for Ouinguennial Index. 1933-1937	"Annual Reports on the Progress of Chemistry: Printing and Honoraria		
ONS FUND.	1937	£ 8. d. £ 8. d.	1160 28 38 85 128 6 83 10 8	3598 14 0 47 3 2	596 8 2	•	AI, II, and III 1323 15 4 90 18 10	93 18 2 1626 8 9 3980 15 3 63 5 6	416 10 5 139 17 9	7665 10 0	771 18 3	11 11 606 719	214,523 11 11
ATI(		ġ											
PUBLICATIONS	1938	£ 8. d. £ 8. 0	3095 14 9	17 15 6 60 0 0		9 2250	478 3 0		1	150 0 0 1162 2 6	600 0 0 315 19 9 99 17 10	6184 14 0	10, 281,61
PUBLIC	Income. 1938	mbers):		17 15	emistry 1046 1 10	"Proceeds of Advartisements: Journal 611 14 9 Annual Reports 72 4 0			12 2 6 1000 0 0 Summaries to Papers	$\frac{0 \ 0}{1162}$	600 0 315 19 99 17	n publications)	10,182,10,10

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1938.

	1938	£ 8. d. £ 8. d.	546 5 1 146 7 6 30 0 6 795 12 1	1447 4 0 175 15 6 15 15 15 15 15 10 0 7 15 18 9 18 9 18 9 18 9 18 9 18 9 18 9 1	1917 10 6		£2640 3 7
	Expenditure.	' ;	By Capital Expenditure:  Books and Perfodicals **	:::::	Overlead Expenses (proportion)		• Other than those received in exchange.
LIBRARY.	1937	£ s. d. £ s. d.	593 4 10 149 4 9	•	1762 5 8		22504 15 3
LIBR	1938	£ 8. d. £ 8. d.	522 13 1 200 0 0 729 13 1		100 0 0 103 13 13 13 13 13 13 13 10 10 10 10 10 10 10 10 10 10 10 10 10	6 10 2 232 0 2 150 15 5	£2640 3 7
	Income.		To Contribution for Fitthings, Furniture, Books, Periodicals and Binding: Transfer from General Purposes Account , "Herbert Spencer Bequest	". Contributions through the Chemical Council Cowards maintenance: Chemical Society (transfer from General Purposes Account)	Contributions, etc., received from other sources towards maintenance: Association of British Chemical Manufactures	Miscellaneous receipts	
	1937	£ s. d. £ s. d.	542 9 7 200 0 0 77	• =	000000	6 5 9 227 10 9 57 4 11	22604 15

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1938.

1938 \$\frac{\xeta}{5} \ s. \ d. 703 \ \ 8 \ 0	1938 £ 3 4. 5 9 8 21 3 1 77 8 10	£104 1 7
By Honorarium, Hugo Müller Lecturer	Expenditure.  By Production of Report on Physico-Chemical Symbols	
RESEARCH FUND.  1 938  2 5. 4 469 16 8 21 0 0 188 10 644 17 6 18 10 0 15 0 0 15 0 0 22 18 5 22 0 0 65 1 2 6736 14 4	2ATIONS 1937 14 5 9 103 18 1	£118 3 10
111111	SPECIAL 1938 £ s. d. 1938 517 9 517 9 1 0 10	74 0 8 2 2 7 £104 1 7
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1937 £ 4. d. 480 18 9 17 189 180 9 9 17 180 18 9 9 17 18 9 9 18 9 9 18 9 18 9 9 18 9 18	2. 3. 4. 6. 6. 4. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	74 74 1 118

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1938.

SPECIAL LECTURES FUND.	## 1938   1937   Expenditure.    3	STAFF PENSIONS FUND.  1. d. 10 Transfer from General Purposes Account	### THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.  ### 4

INCOME AND EXPENDITURE ACCOUNTS OF OTHER FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1938.

CENTENARY FUND.	Income.   Income.   1938	THE HERBERT SPENCER BEQUEST.  To Interest on Deposit in Post Office Savings Bank	THE FARADAY LECTORE FUND.  To Interest on Deposit
	1937 £ 4. d. 10 I 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	£ 6. d. 190 12 6 10 10 10 10 10 10 10 10 10 10 10 10 10	To I

THE CHEMICAL SOCIETY.-BALANCE SHEETS, 31st December, 1938.

1938	28,111 16 6 1,1874 1 16 6 1,1874 0 0 20 6 8	1	£30,326 3 7	9,363 3 10	£ 5, d, 14,675 18 0	£15,074 7 10
Assets.	By Investments as per Schedule (cost or value when acquired) Sundry Debors			By Investments as per Schedule (cost or value when acquired)	By Investments as per Schedule (cost or value when acquired)	
PURPOSES.	28,016 28,016 24,7 16 32 0 0 71 8 114 9 5	1	11 0 100,623	## 10 PUBLICATIONS FUND. ## 0. 4 9,363 3 10 9,362 3 10	## FUND.  ### 8. 4.  14,675 18 0  ### 9 4	£15,108 7 4
GENERAL PURPOSES 1938   1937	d. 1,60 s. d. 1,000 s. 10 8,174 15 2 300 0 0 5	4 00	230,320 3	• •	4. ESEARCH 324 8 0 10 0 14,749 19 10	£15,074 7 10
	£ 3. d. 22,409 5 5 5 288 1 3	22,121 4 42 0			£ 8. 14,771 19 —	
Liabilities.	To Subscriptions received in advance , Sundry Creditors (Printing and other Expenses)	Add Life Composition Fees (two-thirds)  "Current Account at Bankers (overdrawn) "Loan, Chemical Council		To Excess of Assets over Liabilities as per last Balance Sheet	To Sundry Creditors	
1937	£ s. d. £ s. d. 7 s. d. 7 s. d. 1 s. d	0 0 0 0	£29,007 0 11	£ 3. d. 9,363 3 10 To Excess of Ass	2 s. d. £ s. d. 14,706 18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 9 9 9	215,108 7 4

THE CHEMICAL SOCIETY. BALANCE SHEETS, 31ST DECEMBER, 1938.

1938 £ 5. d. 1600 0 0	£1 12123	£ s. d. . 1000 0 0 . 102 11 11	£1102 11 11	£ 8. d. 902 13 9 5 0 8 £907 14 0	£ s. d. 1101 7 11	£1266 0 11
Assets. Schedule (cost or value, when acquired)		SPECIAL LECTURES FUND.   . d. £ f. d.	£1112 9 4	SIONS FUND.   2 s. d.   3 d.   3 m Cash at Bank	THE EDWARD FRANK HARRISON MEMORIAL TRUST FUND.    100	£1216 9 \$
SPECIAL PUBL. 1938 £ s. d. £ s. d.	2044 4 2 77 8 10 2121 13 0 £2121 13 0	£ 8. d. £ 8. d. 1109 18 4	7 1 6 1102 11 11 £1102 11 11	STAFF PENSIONS  907 14 0 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	£ f. d. £ f. d. 1216 9 3 49 11 8 1266 0 11	£1366 0 11
Liabilities. 7 3 To Sundry Creditors	Balance Sheet	0 To Sundry Creditors	Less Excess of Expenditure over Income for year	To Excess of Assets over Liabilities as per last Balance Sheet	THE EDWARD  a. d. To Excess of Assets over Liabilities as per last Balance Sheet	
1937	103 18 1 2044 E2044 1	£ 8. d. £ d 16. 1066 12 9 43 0 7	1109 1	£ 5. d. To Exc 207 14 0 To Exc 2907 14 0	£ c. d. £ c. 1163 16 4 62 12 11 1216 5	£1216 E

THE CHEMICAL SOCIETY. BALANCE SHEETS, 31ST DECEMBER, 1938.

1938 8. 4. 6. 18 10 611 9 2	5 8 d. 471 3 3 4 4 4 4 4 4 4 4 1 3 3 4 4 4 4 4 4	868 8. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	£ s. d. 1492 2 0
		                   	: :
Assets. By Cash at Bank	sank	ECTURE FUND.  By Investment as per Schedule (cost or value when acquired)  Cash at Bank	BEQUEST.  By Investments as per Schedule (cost or value when acquired)
CENTENARY FUND.  1938 1937 260 6 9 8 6 6 9 8 6 9 8 6 9 8 6 9 8 9 8 6 9 8 9 8	THE HERBERT SPENCER BEQUEST.  ### 4. d. & f. d.   231 16 & By Cash at E    ### 267 16 b.   473 7 7    ### 2473 7 7    ### 2473 7 7    ### 2473 7 7    ### 2473 7 7    ### 2473 7 7    ### 2474 4 0	THE FARADAY LECTURE  2 4 6 6 6 6 1	THE TILDEN BEQUEST
Liabilities.  To Excess of Assets over Liabilities as per last Balance Sheet  Aid Excess of Income over Expenditure for Year	£ t. d. To Balance unexpended at \$1st December, 1937  Less Excess of Expenditure over Income for the year	To Cash received from the Managers of the Boyal Institution Add Excess of Income over Expenditure for year	To Value of Investments received from Bxecutors
1937 260 6 9 	£ 8. d. 931 16 6 130 13 6	To Gash rec Add E	To Value of

# BUREAU OF CHEMICAL AND PHYSIOLOGICAL ABSTRACTS.

INCOME AND EXPENDITURE ACCOUNT OF ABSTRACTS A 111 FOR THE YEAR ENDED 51ST DECEMBER, 1958.	Expenditure, 1938		## Printing and Peper	, Distribution—Members of 3 Societies	Abstractors' Fees	,, Excess of Income over Expanditure	<ul> <li>The Chemical Society, The Physiological Society, and The Biochemical Society.</li> </ul>	
JUT OF ABSTRACTS	1938	£ 8. d. £ 8. d. 2296 4 11 2 0 11	1300 0 0 400 0 0 200 0 0	13 3 2 4 0 1		64211 12 9		
INCOME AND EXPENDITURE ACCOU	Income.	:: :: ::	The Chemical Society	"Interest on Deposit	1			

1938.
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## SCHEDULE OF INVESTMENTS.

GENERAL PURPOSES.			RESEARCH FUND.	
Nominal Details.	Cost or Value when Acquired.	Market Value 31st December, 1938.	Value or Cost when Nominal Details. Acquired.	Market Value 31st December, 1938.
4787 London, Midland and Scottish Rallway 4%, Debenture Stock £1520 14s. 3d. Cardiff Corporation 3%, Stock, 1914/54	£ \$. d. 839 3 7 1650 0 0 1316 1 0	£ 8. d. 759 9 1 1429 9 4 889 0 0		£ s. d. 615 0 0 666 18 7
£2400 Bristol Corporation 2½% Debenture Stock, Bristol Dock Account, Midland and Scottlish Rallway 4% Preference Stock £1200 Leeds Corporation 3% Stock	2070 2 0 3572 0 4 1143 1 0 1067 12 10	2004 0 0 1356 10 0 984 0 0 1025 1 0		936 17 5 1431 1 11 729 8 7 4931 10 8 6232 9 0
£1200 London and North Eastern Railway 3% Debenture Stock £700 Canada 34%, Stock, 1930/50	1033 11 0 704 8 6 2446 2 6	846 0 0 707 0 0 2772 15 9	£14,675 18 0	£15,543 6 2
£410.9 % auton auton £500 4% Funding Loan, 1860/190 £512,926 9s. 0d. 3½% Conversion Stock, 1961, or after £408 2s. 6d. 3% Funding Stock 1959/69	0041	1205 17 6 645 0 0 12,764 17 4 385 13 7	SPECIAL PUBLICATIONS FUND. \$2115 8s. 10d. 3\frac{1}{2}Conversion Stock, 1961, or after \$1600 0 0	£2089 0 0
	£28,111 16 6	£27,774 13 7	SPECIAL LECTURES FUND.	
			£1299 9s. 4d. 3½% Conversion Stock, 1961, or after £1000 0 0	£1283 4 6
PUBLICATIONS FUND.			STAFF PENSIONS FUND.	
£5260 19s. 9d. 3½% Conversion Stock, 1961, or after £3173 1s. 6d. 5% Conversion Loan, 1944/64 £817 P. & O. Stean Navigation Co. Deferred Stock £827 T. cholon Wildland and Stocktish Religious 4% Characterists & Stock	3645 12 8 3199 18 7 2060 0 0	5195 4 6 3478 9 8 888 9 9		
TOOO TOOME BILL SOOME TRAILES I TOO TOOME TOO TOO TOO TOO TOO TOO TOO TOO TOO TO	3 1		8 1 200 18 9 E80 18 9	£1082 8 2
THE TILDEN BEQUEST			1. 34% Conversion Stock, 1961, or after	
\$532 London Transport "B" 5% Stock 186 National Provincial Bank Shares £5 each, £1 paid "B" £230 Metropolitan Water Board (Kent Water Works) 3% Deb. Stock	625 2 0 678 18 0 188 2 0	619 15 7 665 13 0 181 10 0		£1272 1 9
	£1492 2 0	£1466 18 7	### FARADAY LECTURE FUND. ### ### ### ### ### ### ### ### ### #	£370 5 3
			F. P. Dunn. Treasurer.	KN. ?r.

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

Chartered Accountant.