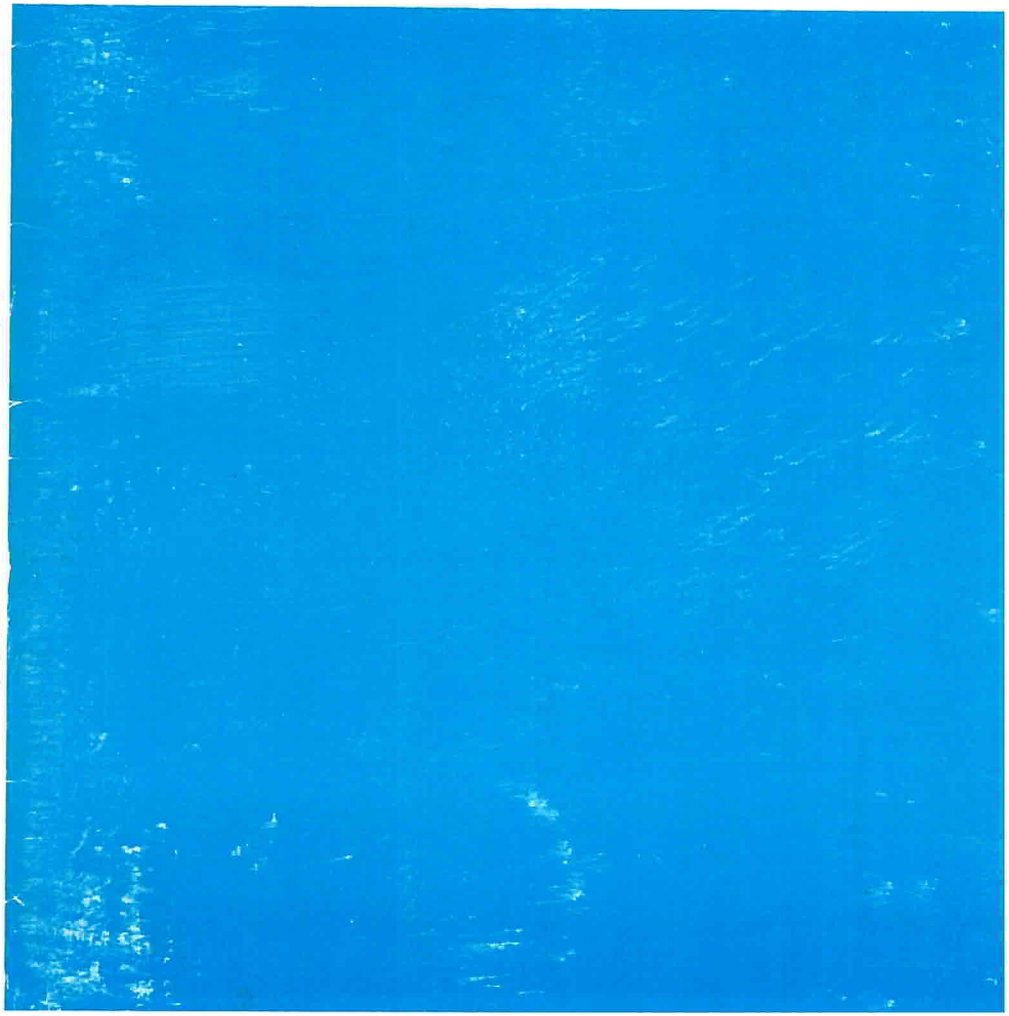
S.E.B.

ORIGINS AND HISTORY 1923—1973



THE SOCIETY FOR EXPERIMENTAL BIOLOGY

ORIGINS AND HISTORY

Printed on behalf of the Company of Biologists Ltd. for the Fiftieth Anniversary Meeting of the Society, Cambridge, 16-19 July, 1974

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SOCIETY FOR EXPERIMENTAL BIOLOGY

This booklet on the origins and history of the Society for Experimental Biology, originally collated and edited by M.A. Sleigh and J.F. Sutcliffe and published in 1966, has been revised and reprinted on behalf of the Company of Biologists for the Fiftieth Anniversary Meeting of the Inauguration of the Society to be held in Cambridge, July, 1974. The Society is indebted to the Company for this generous gesture.

The photograph reproduced here has been presented to the Society for the archives by A.W. Greenwood, whose association with the Society goes back to the early days. He is one of the few remaining members to have close links with F.A.E. Crew, under whose Chairmanship the resolution to found the Society was carried. The photograph was taken on the roof of the Chemistry Department at King's College, London, during the fourth meeting of the Society (29th-30th May, 1925). It is probably the earliest photographic record of a Society meeting. F.A.E. Crew is seated sixth from the left in the front row, with Ruggles Gates and D'Arcy Thompson on his right; A.W. Greenwood is standing in the back row fourth from the left.

A.W. Greenwood has also contributed a note on recollections of the early days of the Society. This is reproduced overleaf together with a statement from A. Punt, Zoological Representative of the Society in the Netherlands, on the origin of the International Meetings. Apart from these additional contributions the original format of the History has been left intact, and the text revised wherever appropriate to bring the records up to date.

N. SUNDERLAND
P. SPENCER DAVIES

July, 1974

Fourth SEB Meeting, King's College, London, 29-30 May, 1925

EARLY DAYS OF THE SOCIETY

Although not personally involved in the immediate lead-up to the formation of the *British Journal of Experimental Biology* I can, at least from subsequent knowledge, present a picture of those early days in Edinburgh.

Frank Crew, a medical graduate, returned to Edinburgh after long service in the first World War with no inclination to practise medicine again. He accepted an appointment as Assistant in the Natural History Department of the University under Professor Cossar Ewart, well known at that time for his work on animal breeding: the Penicuik Experiments. Because of Crew's association with Cossar Ewart, and also his own interest from boyhood in the breeding of bantam fowls, it was perhaps logical that he should become the first director of the Animal Breeding Research Department (A.B.R.D.), a new research organisation subsidised jointly by the University and the Department of Agriculture for Scotland in 1920.

Within easy distance of the Old College of the University were the High School Yards where some University departments were located. Here also was a long-disused building, once a fever hospital, that was taken over by Crew to house his research group. Those of us who were to know his future activities well believe the personal record of his efforts to make the building habitable, which included plumbing, re-wiring for light and power, and construction of laboratory furniture.

In 1922 Lancelot Hogben was appointed to the staff as Assistant Director. It was about this time that the idea of promoting a British Journal of Experimental Biology was discussed and finally brought to fruition with Crew as its first managing editor.

I came to Edinburgh in 1923 and was fortunate to be associated with Hogben before he left to join Professor Sharpey-Schafer as Senior Lecturer in experimental physiology. He was replaced as Assistant Director by Dr. G.F. Finlay, a Ph.D. of Cambridge with post graduate experience in America of the modern approach to animal breeding methods through genetics. To insert a purely personal note at this point, both these men exerted a profound influence on my future in research – Hogben in endocrinology and Finlay in introducing me to the Brown Leghorn Fowl as an ideal source of experimental material which I was to enjoy over the next forty years.

Although Finlay resigned his post to return to Australia ere long, he had publications in Volumes 1 and 2 of the *British Journal of Experimental Biology*. Other staff members represented in Volume 1 were Honor Fell, Crew and Hogben while Arthur Walton and I appeared as contributors to Volume 2.

It is a matter of some regret to me that I cannot call to mind the meeting of the personnel involved in establishing the Society itself.

A.W. GREENWOOD

INTERNATIONAL MEETINGS

I remember quite vividly the first International Meeting of the S.E.B. in 1947 at Utrecht. We were just recovering from the severe handicap which the war and the occupation of Holland had forced upon us and upon our scientific research. It was quite refreshing to meet fellow-biologists from abroad, to give them hospitality in our families (hotel accommodation was rather poor at that time) and to discuss future research. In particular the contact with experimental biologists of different disciplines, botanists, zoologists, cytologists etc. proved to be very attractive, as a society comparable with the S.E.B. does not exist in the Netherlands. Indeed, we considered the S.E.B. as a "Royal Academy of Sciences" for the common biologist!

As far as I know, the Utrecht meeting was an experiment, made possible by the efforts of the late Prof. G.J. van Oordt. Fortunately it resulted in a regular series of two-year international conferences, which were visited by quite a lot of Dutch biologists. Personally, I consider these meetings as an opportunity to meet my countrymen as well. As a matter of fact, botanists and zoologists, after a combined university study, drift apart, associated as they are in different societies.

In our country, nowadays, the tendency is to combine scientists of a rather specialised field of investigation into a working-association, a number of which have already been established. Though the advantage is obvious, not only from the point of efficiency in scientific work, but also in combining efforts to raise the necessary funds, still the disadvantage is a dangerous narrowing of one's horizon. I consider it worth while to look over the boundary of a too narrow specialisation on the progress of adjacent disciplines. The S.E.B. meetings offer this opportunity. They still have a task to fulfil.

A. PUNT

THE ORIGINS OF THE SOCIETY

by

LANCELOT HOGBEN, F.R.S.

To understand the circumstances which brought the Society for Experimental Biology into being, we should remind ourselves that the theological overtones of the controversy provoked by the publication of the *Origin of Species* and by Haekel's devotion to the Darwinian doctrine influenced the character of zoological far more than that of botanical research in British and German Universities. By 1910 phylogenetic speculation wedded to descriptive embryology here dominated zoological enquiry, while plant physiology continued to occupy an honourable estate in the laboratory.

It is true that Bateson had registered a vigorous claim for the experimental method in a field heavily overgrown with the algebraical weeds of the Weldon-Pearson partnership; but Bateson was oddly unable to surround himself with disciples reluctant to remain permanently *in statu pupillari*. His only teamwork on equal terms, that with Punnet, led the two increasingly into fruitful preoccupation with plant, no less than with animal, life. Meanwhile, R.H. Lock, first in the field to recognise Sutton's discovery of the pairing of homologous heteromorphic chromosomes as the material basis of linkage, left Cambridge for the outposts of Empire unwept, unsung and unrewarded. Alone in Cambridge at that time, Doncaster, who discovered (1908) sex linkage, took the suggestion seriously, and outside Cambridge, genetics had made little impact on the zoological curriculum when I myself attended Punnett's advanced course in 1913.

The degree syllabus for zoology in London and Edinburgh at that date had no niche for comparative physiology. With one creditable exception the same was true of Oxford. There, Jenkinson had lectured on experimental embryology since 1906. Before the outbreak of war in 1914, however, there were in Cambridge other portents of disillusionment with the banalities of fabricating pedigrees in the absence of any supporting credentials from palæontological sources. Coming as it then did from a leading member of the Cambridge School of Physiology, Gaskell's meticulously ingenious exposure of the futility of discussing the origin of Vertebrates from ancestors with no available fossil relics made the first big breach in the walls. Mines, also a Cambridge physiologist, but of a later vintage, carried out (1912) extensive researches on the relation between mineral constituents of the blood and the heart rhythm of invertebrates and elasmobranchs. About the same time, Keith Lucas delivered a short course on Comparative Physiology in the Cambridge Department of Zoology. The early deaths of Keith Lucas and Mines by accident deprived British biology of two

investigators who did much to stimulate later work of a younger generation. At Cambridge, two newly graduated zoologists, Harold Munro Fox and James Gray, entered the field of experimental embryology on their own initiative during the two years before August, 1914. At Naples, Julian Huxley had been working on cognate problems. Also under his own steam, Orton at Plymouth was undertaking the study of ciliary feeding.

In four main directions during the war years (1914-18), experimental zoology underwent a spectacular development in the United States; genetics wedded to cytology, *entwicklungs-mechanik*, comparative endocrinology and the physiology of reproduction. That Julian Huxley, who held (1913-16) a teaching post in the Rice Institute, Texas, came under its impact largely accounts for its rejuvenating effect in the British scene when he later took up residence in Oxford (1919-25). Far more than any other British biologist, Huxley publicised the overseas advances in the four fields mentioned, and did so with an evangelical zeal which infected J.B.S. Haldane. Of this period, I especially recall an all-night discussion in Julian's rooms at Oxford where I first (1921) met H.J. Muller, Sturtevant and Altenburg. It was their first visit to Britain at Huxley's invitation, each with a Victorian hat-box of Drosophila cultures in out-size test tubes. The sequel, in a tense atmosphere at Merton, was an *amende honorable* from Punnett, who had hitherto refused to recognise the claims of cytology in the domain of genetics.

Meanwhile, James Gray had resumed his fellowship at Kings, had accepted the Balfour Studentship (1919-23) and had become the mentor of a new generation of Cambridge zoologists. Foremost among his more notable pupils was C.F.A. Pantin, whose appointment (1922) to the Staff of the Plymouth Marine Biological Laboratory as Assistant Physiologist made Plymouth an outstanding training ground for young zoologists in experimental methods and a Mecca for marine ecology to those who took an active part in the Society during its formative days. Carl Pantin was that rare combination, a biologically minded physical chemist (or *vice versa*) in the Mines-Lucas tradition. There were still, he has told me, relicta of apparatus used by G.R. Mines and Keith Lucas in the Hoe Laboratory when he joined its staff.

The end of the 1914-18 war brought back to the Scottish scene F.A.E. Crew, an Edinburgh graduate (1912) of medicine. Before its outbreak. Crew had undertaken experimental work in genetics at his own expense; and he abandoned medical practice after demobilisation to teach in the zoological department of his *alma mater*. There his seductively dramatic gifts as a lucid expositor of the newly-hatched theory of the gene enlisted the attention of Sharpey-Schafer at a time when the veteran endocrinologist was actively promoting the inauguration within the University of the Animal Breeding Research Department. Crew became its first Director in 1921. There were then few cytologists in Britain, and Crew was understandably anxious to

enlist one as his deputy.

Under the influence of Doncaster, I myself had had (1919-22) an early, by no means epoch-making, flirtation with genetical cytology, but abandoned it for endocrinology and the study of the chromatic function. On Crew's invitation, I joined him in 1922 as his second-in-command, with the stipulation that I should be part-time lecturer in Comparative Physiology in the Zoology Department of the University. Owing to financial difficulties which faced the new Institute in its first years, the partnership lasted only till Sir Edward Sharpey Schafer offered me a senior lectureship in the Physiology Department of the Edinburgh Medical School. The year of our association in day-to-day work initiated a lifelong and, to the writer, a very precious friendship. It is therefore a welcome occasion to place on record that I owe to no one so much as to Frank Crew the realisation of my ambition to become a man of science.

The birthplace of the Society was the Animal Breeding Research Department (as then designated), temporarily housed by Crew's inspired opportunism in a dilapidated and abandoned Infirmary in a back street of Old Edinburgh. Himself actively engaged in work on the physiology of reproduction in general and the mechanism of sex determination in particular, Crew was adamant that the policy for what was to become the University Institute of Animal Genetics should eschew the splendid isolation of the Bateson-Punnett alliance. To promote a hothouse atmosphere, he made opportunities for visiting research workers during vacations. Among these were Julian Huxley and J.B.S. Haldane, with each of whom we were both already on familiar terms, also F.R. Winton and Gavin de Beer. An otherwise inauspicious setting in the Infirmary at High School Yards was thus the springboard from which Honor B. Fell was to take up tissue culture and Arthur Walton the study of artificial insemination under Crew's guidance.

On one such visit, Crew, Huxley, Haldane and myself became the Founding Fathers of the Society. However, the initial intention was not to found a society. What prompted our common aim was the lack of any medium of publication, other than the *Transactions* and *Proceedings* of the Royal Society, for research of the sort which interested us. In so far as British zoology had at that time an official mouthpiece, it was the *Quarterly Journal of Microscopical Science* founded by Ray Lankester and edited by Goodrich in the tradition of the founder. Under the proprietorship of Langley, the *Journal of Physiology* had opened its door to Barcroft and Krogh, who were turning their attention to the study of respiratory pigments in fishes and invertebrates; but Langley was an unpredictable editor with no partiality for many themes which attracted zoologists who had turned their backs on descriptive and taxomic pursuits.

Before going to Cambridge, G.P. Wells studied for a year in the Department of Zoology where Thomas Henry Huxley had taught in the days when

the Imperial College was the Normal School of Science. There, his father had been a student; and I was then a lecturer in what had once been Huxley's Department. Through G.P., I made the acquaintance of H.G., who had never ceased to enjoy discussing matters zoological. Shortly before I left for Edinburgh, I brought up the issue of research publications on one occasion with Wells *père*. He was helpfully informative about costs and, to my intense gratification, offered to underwrite the initial outlay for starting a biological journal for the publication of experimental research. With such encouragement, I had tentatively explored the publicity requirements and expenses of such a venture before conversation with Crew. Huxley and Haldane, during their first visit to Edinburgh, turned to the lack in Britain of publication facilities comparable with those available in the U.S.A.

When I mentioned the offer of H.G. Wells, Crew weighed in with the handsome declaration both that he had in hand enough cash from compensation for war wounds to finance the initial project from his personal savings, and that he would be delighted to put it at our joint disposal. Then, as ever, he was as good as his word, and in this *milieu* there were sufficient reasons why Edinburgh should initially be the seat of government. Crew had the ear of an Edinburgh publisher of good standing in academic circles, and I alone of the four of us was willing, with Crew's encouragement, to handle the circularisation of libraries, University departments and Institutes. For such reasons, and not at all because of his generous offer, Huxley, Haldane and I persuaded Crew to be the first managing editor. Of the composition of the Board, one name, that of Ruggles Gates, especially deserves mention. It signalises the scope of the agenda for the inaugural meeting of the Society. At the outset, and for several reasons, I myself suggested that the venture we contemplated should be a platform for plant physiologists no less than for experimental zoologists.

If it is certainly true that my three colleagues cordially endorsed the proposal, it would be equally true to say that I felt most strongly in its favour. As a Cambridge undergraduate, I had attended advanced lectures on plant physiology and ecology when neither animal physiology nor animal ecology had a niche in the zoological curriculum. In the setting of 1922 this was no longer true. As senior Lecturer in the Oxford Department of Zoology, Huxley took the lead in promoting the University Expedition to Spitzbergen with terms of reference giving emphasis to the study of animal ecology and behaviour. Under Elton at Oxford and Saunders at Cambridge, animal ecology had now begun to assert its overdue claims. In the ample common ground which botanists and zoologists shared through rapid advances in genetics and cytology, it also seemed, and still seems, to me that botanists could contribute a uniquely lively appreciation of the species problem in the field as distinct from the museum. Moreover, my current preoccupation had brought me into correspondence with a botanist who was

the senior partner in an experimental study of crustacean colour change. It is noteworthy that Keeble and Gamble (1904-6) published the results of this unique partnership at a time when experimental zoology was at its lowest level in twentieth century Britain.

Having contacts with Ruggles Gates, then mainly interested in plant cytology, I urged that we should invite him to join the Editorial Board of the forthcoming *British Journal of Experimental Biology*. Both its title, and the accession to the Board of a University Professor of Botany, thus emphasised that the venture was not to be, like the American *Journal of Experimental Zoology*, a medium for the publication of contributions to the comparative physiology of animals only. None the less, the maintenance of a steady intake of material of an acceptable standard from more than one source was initially an undertaking more precarious than the Editorial Board had anticipated. This was largely so because of an occurence which might have extinguished our ardour, if we had been forewarned. Faced with the same problem as our own group, the new Cambridge school of zoologists were negotiating with the *Cambridge Philosophical Society* to issue separate Transactions devoted wholly to biological enquiry like the B series of the *Proceedings of the Royal Society*.

At that time, there was no allocation of public money for an enterprise of this sort. Journals devoted to scientific research relied heavily on societies whose membership entailed subscription and, incidentally, embraced most of the contributors. Both as a source of contributors and as a source of contributions, it thus seemed to Crew and to myself that only a supporting society comparable to the Physiological, the Biochemical, the Royal Microscopical, the Linnaean Societies, and others of the sort, could ensure the viability of the Journal. Haldane, Huxley and Gates agreed. Others of the Board opposed, and even threatened to resign, on the assumption that the project would be a fiasco. However, we issued from Edinburgh the agenda for an inaugural conference at Birkbeck College, London University, in the Christmas vacation, 1923. The invitations went to University departments of botany, zoology and physiology, likewise to selected research institutes; and the attendance exceeded the most extravagant hopes of the promoters. Botanists turned up in strength as hoped. More than we could have dared to hope, Joseph Barcroft with associates from the Cambridge Department of Physiology gave the meeting the full weight of his influential standing.

Among those present were Dr. G.P. Bidder, a Cambridge zoologist with substantial private means and business interests. From the start, he placed his financial experience at the disposal of the Secretaries of the Society, and of the Board. Otherwise it was essentially a Youth Movement with the good fortune to attract among its youngest founder members C.F.A. Pantin and Eric Ashby. From the atmosphere of the first session, it was evident that there was a well nigh unanimous acceptance of the need for a Society which

could bring together experimental biologists from a wide range of specialties. The inauguration was therefore a foregone conclusion. Contrariwise, the extent of its support for the new journal was in doubt; and it would clearly have been premature to press its claims when Gray, Saunders, Fox and others had in effect committed themselves to publication in a journal sponsored by the Cambridge Philosophical Society. In accordance with the policy of the Journal, the Society decided at its inaugural meeting to have two secretaries, one a botanist the other a zoologist. It elected Ruggles Gates and Lancelot Hogben; myself because I had undertaken the domestic task of organising the conference. The personnel of the first Council of the Society were:

> E.J. Allen, J. Barcroft, W. Bateson, G.P. Bidder, R. Briggs, H.G. Cannon, A.J. Clark, F.A.E. Crew, D. Ward Cutler, W. Dakin, C. Diver, R.A. Fisher, H. Munro Fox, J. Gray, J.S. Huxley, T.R. Parsons, M.C. Rayner, A.D. Ritchie, D.M.S. Watson and the Treasurer, G.C. Robson.

The policy with respect to its quarterly meetings laid down at the outset was in accord with the intention to promote cross-fertilisation between widely separated compartments of biological enquiry. Like the Physiological Society, it was to hold them in different centres of active research able to provide facilities for laboratory demonstrations; but (unlike the elder sister organisation) it would not restrict the agenda to contributions of individual research. On the contrary, it would encourage reviews of recent progress by invitation. In the early days of the Society, symposia of a sort which the Royal Society has promoted only during the last two decades were indeed a prominent feature of its agenda. These provided the means of interchange of ideas between specialists who would otherwise rarely make contact with one another, and they provided the secretaries with opportunities to invite outsiders who might be influential recruits. One such was H.H. Dale, later President of the Royal Society.

During the first three years, the Society continued to evoke enthusiasm and a considerable attendance; but the prospects of the Journal remained precarious. In Scotland, experimental biology was not flourishing conspicuously except in Edinburgh; and there, Sharpey-Schafer, with more catholic sympathies than Langley, offered unique opportunities for publication in the *Quarterly Journal of Experimental Physiology* under his editorship. For one reason or another, it was thus becoming increasingly clear both that Edinburgh could aspire to be at best a seat of remote control, and that the Journal could not attract sufficient contributions of high quality while the Cambridge zoologists were committed elsewhere. On the other hand, the latter realised that a parochial publication sponsored by the Philosophical Society is at a disadvantage as a medium for international circulation.

To be sure, there were formidable obstacles to a merger with advantages to all concerned. The Journal was still in debt to the Scottish firm which had

hitherto produced it; and James Gray, acknowledged by all as the outstanding British figure in experimental zoology, felt himself to be committed to the Cambridge Philosophical Society. As one of the secretaries of the Society of Experimental Biology, a possible rapprochment was my most pressing preoccupation during my vacational visits to Plymouth as Ray Lankester investigator, and it was the topic of frequent discussion with Carl Pantin and with G.P. Bidder, himself a frequent visitor to the Hoe Laboratory. It was Bidder who made the proposal to form a limited liability company to purchase the Journal. At his shrewd suggestion, J.T. Saunders became the indefatigable Secretary of the Company.

Bidder also proposed that the Journal should be published by the Cambridge University Press under the joint editorship of Crew and Gray. Subject to these arrangements, Bidder was prepared to make himself personally responsible for any overdraft incurred by publication. With characteristic chivalry, Crew warmly supported Bidder's proposals and from that moment onwards the future of the Journal was assured. After the issue of its first two volumes, the Biological Proceedings of the *Cambridge Philosophical Society* ceased to be a medium of publication for original research, but continued to appear in a new guise as *Biological Reviews*. Under the able editorship of Harold Fox, the Journal very quickly established its present international reputation.

Such was the situation in 1925 when appointments abroad cut me off from personal contact with the Society till my return to Britain in the fall of 1930. It is gratifying to record that Carl Pantin succeeded me.

FOUNDATION

The Society was formed in December, 1923, at a meeting of experimental biologists arranged at Birkbeck College by the Editorial Board of the *British Journal of Experimental Biology*, the first number of which had appeared two months previously. A business meeting was held on the afternoon of 22nd December, under the chairmanship of F.A.E. Crew, Managing Editor of the *Journal*.

The following resolutions were moved and carried at that meeting:

1. That this conference proceed with the formation of an Association to be called the Society for Experimental Biology.
2. That Dr. Lancelot Hogben and Professor Ruggles Gates shall act as joint secretaries of the Society.
3. That Mr. G.C. Robson act as Treasurer of the Society.
4. That the business of the Society shall be conducted by a Council empowered to make rules for the conduct of the Society.
5. That the following be invited to serve as members of Council:

Dr. E.J. Allen	Mr. C. Diver
Prof. J. Barcroft	Dr. R.A. Fisher
Dr. G.P. Bidder	Mr. H. Munro Fox
Dr. H. Graham Cannon	Mr. J. Gray
Dr. F.A.E. Crew	Dr. J.W. Heslop Harrison
Dr. D. Ward Cutler	Prof. J.S. Huxley
Prof. W.T. Dakin	Dr. M.C. Rayner

6. That the *British Journal of Experimental Biology* be the official organ of the Society.
7. That the Society shall hold at least three conferences during the year and the Council confer with the Editorial Board of the *British Journal of Experimental Biology* with reference to the publication of its proceedings in the Journal.
8. That the Council shall determine the subscription and conditions of membership and discuss with the Editorial Board of the *British Journal of Experimental Biology* the possibility of supplying the *Journal* to members at reduced rates.

The majority of those invited to serve on the Council accepted, and at a series of Council meetings held during 1924 other members were co-opted to complete the Council. At these meetings rules for the Society were drawn up, and have since remained largely unchanged.

MEMBERSHIP

At the first Council Meeting of the Society held in January, 1924, it was agreed that "Persons who now have a right without further formalities to be *original* members of the Society are all those present at the Inaugural Conference and all those whom the Officers of the Society determine as desirable". The first printed list of members was not published until 1926; it includes 146 names, of which it is known that 19 were elected at General Meetings in 1924, 17 in 1925 and 13 in January, 1926. There is a hand-written list of names dated 30th April, 1924, bearing 77 names, but it does not include the names of some known to have been at the Inaugural Conference, and there are a few names included which are not in the 1926 list. The following list of names includes all those who are believed to have been members of the Society before the end of 1924; those marked with an asterisk are known to have been elected during 1924 and the others are thought to have been original members as defined above.

E.J. Allen
A.L. Bacharach
J.R. Baker
J. Barcroft
*H. Bargman
W. Bateson
Sir W. Bayliss
G.R. de Beer
G.P. Bidder
K.B. Blackburn
*L.A. Borradaile
*C.L. Boulenger
A.E. Boycott
R. Briggs
*Sir J.G. Broodbank
F.T. Brooks
R. Burian
D.R.R. Burt
H.G. Cannon
H.M. Carleton
A.M. Carr Saunders
G.S. Carter
F.E. Chidester
A.J. Clark
W. Cranmer
F.A.E. Crew
J.T. Cunningham
D. Ward Cutler
W.J. Dakin
G.C. Damant
F. Deacon
A.F. Dence
A. Dendy
C. Diver

*J.S. Gardiner
F.C. Garrett
S. Garstang
W. Garstang
R.R. Gates
S.R. Gloyne
E.S. Goodrich
H. Goodrich
G.M. Graham
J. Gray
A.W. Greenwood
*S.J. Groselj
J.B.S. Haldane
J. Hammond
A.C. Hardy
J.W.H. Harrison
H.R. Hewer
E. Hindle
A.D. Hobson
*W. Hodson
L.T. Hogben
O.D. Hunt
G.E. Hutchinson
J.S. Huxley
J. Johnstone
*W. Neilson Jones
Sir F. Keeble
E.L. Kennaway
W.P. Kennedy
*R. King
R.D. Laurie
M.V. Lebour
E. MacBride
A.D. MacDonald

J.A. Murray
*M.M.A. Murray
P.D.F. Murray
W.C.F. Newton
C.F.A. Pantin
A.S. Parkes
T.R. Parsons
*W.H. Pearsall
M. Pease
C. Pellow
*G.W. Pickering
E. Ponder
F.A. Potts
J. Priestley
R.C. Punnett
A. Subba Rau
M.C. Rayner
*T.H. Riches
A.D. Ritchie
H.E. Roaf
J.A.F. Roberts
*J.A. Robertson
G.C. Robson
E.S. Russell
*R. Salaman
H. Sandon
J.T. Saunders
W. Schlapp
*C. Shearer
*R. Snow
E.A. Spaul
B. Stracey
J. Strohl
*A.G. Tansley

J. Duerden
A.E. Ellis
C.S. Elton
R.A. Fisher
H. Munro Fox
J.F. Fulton
F.W. Gamble

F.H. Marshall
J.S. Martin
R. McDowell
J. Meakins
*F.A. Mockeridge
The Hon. I. Montagu

W. Tattersall
A. Walton
D.M.S. Watson
H.G. Wells
F.R. Winton
E. Whitley

Membership of the Society by election was originally governed by th rule approved at the first Council meeting as follows: "Members shall b proposed by two other members and elected by Council". In fact, startin from the second meeting of the Society held in June, 1924, membe approved by Council were always nominated to a business meeting of th Society for election (except for a suspension of this part of the rule in th war years). In the oldest available set of printed rules incorporating change effected up to April 16th, 1926 (it is believed there was a set printed i 1924, but no copy is known to exist), the rule relating to election t membership reads as follows: "Every candidate for membership shall b proposed by two or more members, by one at least from personal know ledge. Nominations shall be given in writing to one of the Secretaries, a least three weeks before the announced date of the next meeting of th Society. From these names a list shall be proposed by Council for submissio to the Society for endorsement or election by ballot if demanded. One blac ball in six shall exclude". Amendments in wording have been made in thi rule from time to time, but the principle has remained the same, so tha now nominations are brought before the Council and later submitted fo election to one of the three General Meetings held each year. As far as i known, no person has ever been excluded by black ball, though a few have probably been unable to obtain sponsors.

The ordinary membership of the Society has grown steadily both before and after the war period. During the war years there was a drop in membership resulting in suspension of membership rather than resignation. In the period of growth from 1924-40 there were on average 32 elections to membership each year and a loss of 13 members, giving a net increase of 19 members per annum. Since 1945 the number of elections per year has ranged from 80 to about 100, the loss about 30. The membership now stands at 1800 among which 400 reside overseas. The annual subscription, fixed at 12s. 6d. in 1924, remained the same until 1950, when it was raised to £1. A further increase was made in 1971 to the present level of £2.

At the Annual General Meeting of the Society held on 5th January, 1948, the category of *Retired Membership* was instituted by approval of the following addition to the rules of the Society: "Members of the Society who have paid at least twenty annual subscriptions, and also have retired from full-time employment, can apply to the Council for election as 'retired members'. If so elected, they will be entitled to receive all notices

of the Society's activities, and to attend conferences, without any further payment of subscription. They will have no vote at business meetings, and will not be eligible to serve as officers". Members eligible for this category of membership are nominated by Council to a General Meeting of the Society for election as retired members. At the present time (1974) there are about 50 retired members.

A proposal for the institution of the category of *Honorary Membership* was made by Council to the Annual General Meeting on 3rd January, 1964. This was designed as a means of recognising the services of individuals to the Society and conferring an honour which retired membership does not carry. Proposals for honorary membership are made by Council from time to time; Council base their nominations on the record of service to the Society of the members concerned rather than on scientific eminence, although this may be taken into account. Honorary members have the full rights of members without payment of the membership subscription. It was intended that this class of membership should remain small with an initial election of 6-8 members and not more than 1 or 2 further elections annually. The following members were proposed by Council as the first honorary members:

F.A.E. Crew, F.R.S., Sir James Gray, F.R.S., L.T. Hogben, F.R.S., Sir Julian Huxley, F.R.S., W. Neilson Jones, C.F.A. Pantin, F.R.S., W.H. Pearsall, F.R.S., and G.P. Wells, F.R.S.

A celebratory dinner was held on the evening of November 6th, 1964, at Imperial College, London, at which the Council entertained these honorary members. H. Munro Fox, F.R.S., was elected an honorary member in January, 1966, Sir Eric Ashby, F.R.S., in 1967, J.F. Danielli, F.R.S. and T.A. Bennet-Clark, F.R.S. in 1968 and Sir Vincent Wigglesworth, F.R.S. in 1970. O.V.S. Heath, F.R.S. was elected in 1973 on his retirement from the Treasurership, which he held for the record period of 18 years.

ORGANISATION

Initially the business of the Society was conducted by not more than 21 elected Council Members, a Treasurer and two Secretaries. Council members originally retired by lot and were eligible for re-election. From 1927 the normal term of office for Council members was 3 years and eligibility for re-election was restricted at first to two of the seven retiring members; later (in 1953) eligibility for re-election was completely discarded. As the activities of the Society have become more diverse, additional Officers and Council representatives have been appointed from time to time for special purposes. An unusual, and in the view of many people valuable, characteristic of the Society, is that it has no President or Chairman, and therefore the young Officers have shouldered the main executive responsibility. The development of the Society has shown the success of this

pattern of organisation.

During the 1930's, the Society bought a number of shares in the Company of Biologists as a means of helping the *Journal of Experimental Biology* over the financial difficulties of that time. It was thought desirable to appoint one or more Trustees to hold these shares, and such other property as the Council should determine, on behalf of the Society; these Trustees to be ex-officio members of Council. The first two Trustees, J. Gray and C.F.A. Pantin, were elected in December, 1937, and the number of Trustees was increased to three by the election of W.H. Pearsall in 1947. Trustees are elected at an Annual General Meeting and hold office for six years; Gray and Pantin have been regularly re-elected to the office of Trustee, and on the death of Pearsall in 1964, T.A. Bennet-Clark was elected as the third Trustee. G.P. Wells was elected in 1968 on the death of Pantin. In many ways the Trustees are the "elder statesmen" of the Society and the officers and Council find it particularly valuable to be able to turn to them for advice.

As a result of the financial help given to the running and expansion of the *Journal of Experimental Biology* by the Society, the Company of Biologists offered to allow the Society to nominate annually two persons to be co-opted to the Board of Directors of the Company. The first Directors were nominated by the Society at a General Meeting in July, 1938. At first these nominees were not formally officers of the Society, although one or other, or sometimes both of them, were elected members of Council. From the time of a change in rules approved at the Annual General Meeting in January, 1947, the Society's nominees on the Board of Directors of the Company of Biologists were declared officers of the Society and ex-officio members of the Council.

Additional officers of the Society have been appointed from time to time, including Assistant Treasurer, Publications Officer, and Officers concerned with the organisation of Symposia. In 1973, Council appointed M.A. Sleigh to be the first International Liaison Officer. His duties are to promote and maintain contacts between the Society and other Biological Societies in Europe and elsewhere. The International Liaison Officer will hold office for a period of not less than six years in order to preserve continuity.

The Society is, or has been, represented on the following other bodies by members appointed by Council who report to Council on items of interest to the Society:—

The Colloid and Biophysics Sub-Committee of the Faraday Society

British Chemical and Physiological Abstracts

The Annual Conference on the Supply of Laboratory Animals

The Co-ordinating Committee for Symposia on Drug Action

The Biological Council

The British National Committee for Biology

The British National Committee for Biochemistry

The British National Committee for Biophysics

The International Association for Plant Physiology

International Abstracts of Biological Sciences

The British Joint Committee for Electron Microscopy

With the growth of the Society in the post-war years and the increase in its range of activities, it became necessary to give some help to the officers of the Society, in particular to the Treasurer, in the performance of their duties. This was achieved at first by the appointment of an Assistant Treasurer whose functions were largely concerned with publications. Later this office lapsed, to be replaced by the office of Publications Officer. In 1954 a system of permanent secretarial assistance for the Treasurer was arranged with the Institute of Biology. A person is employed part-time at the Institute to look after the Society's membership records, Journal subscriptions and general accounts in return for an annual payment by the Society to the Institute.

The following have served the Society as Officers and members of Council:—

OFFICERS

Secretaries

L.T. Hogben 1923-25
C.F.A. Pantin 1926-28
G.P. Wells 1929-36
J.Z. Young 1937-43
J.F. Danielli 1944-48
M.M. Swann 1949-52
J.W.L. Beament 1953-55
J.D. Carthy 1956-59
S.M. McGee Russell 1960-64
M.A. Sleigh 1965-68
A.P.M. Lockwood 1969-72
P. Spencer Davies 1973-

R. Ruggles Gates 1923-28
W.H. Pearsall 1929-33
E. Ashby 1934-37
T.A. Bennet-Clark 1938-45
R. Brown 1946-49
W.T. Williams 1950-53
R. Scott Russell 1954-56
G.E. Fogg 1957-60
J.F. Sutcliffe 1961-65
B.C. Loughman 1966-70
N. Sunderland 1971-

Treasurers

G.C. Robson 1923-26
W. Neilson Jones 1926-34
G. Salt 1935-37
J.E. Harris 1938-40
H.C. Gilson 1941-47
M.E. Brown 1948-49
J.W.L. Beament 1950-52
C.B. Goodhart 1953-54
O.V.S. Heath 1955-73
J. Edelman 1974-

COUNCIL

First Council nominated December, 1923: E.J. Allen, J. Barcroft, G.P. Bidder, H.G. Cannon, F.A.E. Crew, D. Ward Cutler, W. Dakin, C. Diver, R.A. Fisher, H. Munro Fox, J. Gray, J.S. Huxley, M.C. Rayner.

Co-opted March, 1924: W. Bateson, R. Briggs, D.M.S. Watson.
Co-opted June, 1924: A.D. Ritchie, A.J. Clark, T.R. Parsons.

6 members of Council retired by lot at the end of 1924.

Elected December, 1924 for 1925: J. Barcroft, F.A.E. Crew, T.R. Parsons, W.H. Pearsall, C.F.A. Pantin, C. Diver.

For 1926: A.J. Clark, J.S. Huxley, W. Neilson-Jones, H.E. Roaf, J.H. Priestly, H. Munro Fox.

For 1927: J. Gray, D.M.S. Watson, G.P. Wells, J.T. Saunders, A.D. Hobson, G.S. Carter.

For 1928: F.A.E. Crew, C. Diver, D. Keilin, M.C. Rayner, R. Snow, A.C. Hardy, J. Hammond.

For 1929: A.E. Boycott, F.W. Brambell, E.J. Collins, R.R. Gates, J.B.S. Haldane, H.E. Roaf, G.C. Robson.
E.C. Barton-Wright for one year as replacement.

For 1930: P.A. Buxton, J. Gray, A.D. Hobson, J.S. Huxley, C.F.A. Pantin, J.H. Priestley, A.D. Ritchie.

For 1931: G.R. de Beer, C. Diver, P. Eggleton, H. Munro Fox, L.T. Hogben, M.C. Rayner, C.M. Yonge.

For 1932: A.E. Boycott, H.B. Fell, R.R. Gates, J. Needham, E.A. Spaul, D.M.S. Watson, V.B. Wigglesworth.

For 1933: F.A.E. Crew, J. Gray, J.B.S. Haldane, A.D. Hobson, G. Salt, D. Thoday, J.Z. Young.

For 1934: L.E. Bayliss, R.S.A. Beauchamp, P.A. Buxton, C. Diver, L.T. Hogben, E.J. Maskell, W.H. Pearsall.

For 1935: J.Y. Bogue, A.C. Chibnall, H. Munro Fox, J. Needham, E.A. Spaul, C.H. Waddington, E.N. Willmer.
W. Neilson Jones for one year as replacement.

For 1936: P. Eggleton, J. Gray, C.F.A. Pantin, R.A. Peters, A. Sand, F.C. Steward, D. Thoday.

For 1937: C.D. Darlington, L.T. Hogben, J.A. Ramsay, G.P. Wells, V.B. Wigglesworth, C.M. Yonge, T.A. Bennet-Clark.

For 1938: E.H.F. Baldwin, J.Y. Bogue, F.G. Gregory, K. Mellanby, R.J. Pumphrey, M.A.H. Tincker, C.H. Waddington.

For 1939: E.J.W. Barrington, L.E. Bayliss, C. Diver, L.E.S. Eastham, W.H. Pearsall, A. Sand, F.C. Steward.

For 1940: J. Barker, L.C. Beadie, C. Gordon, G.V.B. Herford, P.M. Jenkin, L.G.G. Warne, V.B. Wigglesworth.

For 1941: H. Munro Fox, P.C. Koller, E.J. Maskell, K. Mellanby, M.A.H. Tincker, G.P. Wells.

For 1942: E.J.W. Barrington, D.L. Gunn, F.S.J. Hollick, W.O. James, K. Mather, W.H. Thorpe, C.H. Waddington.

For 1943: G.E. Blackman, J.F. Danielli, F. Gross, L.T. Hogben, P.M. Jenkin, M. Thomas, L.G.G. Warne.

For 1944: F.G. Gregory, C.D. Darlington, K. Mellanby, C.W. Parsons, K.A. Tansley, G.P. Wells, J.Z. Young.
M.A.H. Tincker for two years as replacement.

For 1945: R. Brown, F.W.R. Brambell, D.L. Gunn, K. Mather, S. Smith, V.B. Wigglesworth, F.R. Winton.

For 1946: L. C. Beadle, T.A. Bennet-Clark, G.E. Blackman, D.G. Catcheside, P.B. Medawar, J.A. Kitching, C.W. Wardlaw.

For 1947: A.R. Clapham, F.G. Gregory, R.D. Preston, H.G. Callan, F.K. Sanders, J.Z. Young, D. Steven.

For 1948: E. Ashby, F.W.R. Brambell, H.C. Gilson, O.V.S. Heath, R.J. Pumphrey, R. Scott-Russell, M.M. Swann.

For 1949: T.A. Bennet-Clark, F.J. Ebling, G.E. Fogg, E.J. Hanson, J.A. Kitching, C.W. Parsons, J.Z. Young.

For 1950: M.E. Brown, J.B. Cragg, G.C. Evans, F.G. Gregory, J.A.C. Nicol, P.S. Nutman, D.M. Steven.

For 1951: G.E. Blackman, D.H. Chitty, D.A. Coult, O. Lowenstein, G.E. Newell, H.E. Street, G.P. Wells.

For 1952: L.J. Audus, P.W. Brian, W.S. Bullough, D.J. Crisp, C.B. Goodhart, C.L. Smith, J.Z. Young.

For 1953: J.L. Cloudsley-Thompson, J.B. Cragg, F.G. Gregory, G. Hoyle, I. Manton, S.L. Ranson, M.M. Swann.
J.A. Kitching for two years as replacement.

For 1954: J.D. Carthy, J. Clarke, A.D. Greenwood, A.D. Lees, D.R. Newth, P.F. Wareing, W.T. Williams.

For 1955: H.W.B. Barlow, M.I. Crichton, C.B. Goodhart, F.J. Richards, J.D. Robertson, G.P. Wells, E.W. Yemm.

For 1956: T.C. Carter, D.S. Falconer, W.O. James, G. Parry, P.S. Wellington, H.P. Whiting, P. Wightman.

For 1957: R. Bainbridge, R.E. Billingham, J. Edelman, H. Jones, O. Lowenstein, F.L. Milthorpe, J.M. Thoday.

For 1958: B.B. Boycott, R. Brown, B.M. Jones, P.L. Miller, J.A.C. Nicol, W.W. Schwabe, C.P. Whittingham.

For 1959: J.H.S. Blaxter, P.M. Cartwright, D.J. Crisp, C. Ellenby, B.F. Folkes, G.A. Horridge, H.E. Street.
T. Shaw for two years as replacement.

For 1960: J.D. Carthy, L.H. Finlayson, J.L. Harley, J.L. Harper, J.S. Kennedy, C.L. Mer, J.F. Sutcliffe.
F. Harden-Jones for one year as replacement.

For 1961: P.C.J. Brunet, E.J. Denton, G.M. Hughes, F.L. Milthorpe, F.J. Richards, J.H. Sang, P.F. Wareing.
P.J. Syrett for two years as replacement.

For 1962: L. Bentley, R.B. Clark, R.W. Edwards, J.W. Hannay, F.G.T. Holliday, G.A.D. Jackson, E.W. Knight-Jones.

For 1963: J. Dainty, J.E. Dale, L. Fowden, G.A. Kerkut, O. Lowenstein, R. Morris, D.A. Walker.

For 1964: H.W.B. Barlow, M. Black, K.C. Highnam, M.S. Laverack, P.L. Miller, B.C. Loughman, M.A. Sleigh.

For 1965: D. Boulter, J. Chayen, E.C.D. Cocking, E. Naylor, R.L. Plack, J. Shaw, P.H. Tuft.
R.F.H. Freeman for two years as replacement.

For 1966: R. McN. Alexander, G.T. Boalch, R.C. Fisher, E.A.C. MacRobbie, J.S. Pate, J.E. Treherne, M.B. Wilkins.
E.H. Roberts and J.E. Webb for one year as replacements.

For 1967: F.S. Billett, R.M. Fulford, J.W. Hannay, L. Hill, H. Opik, C.R. Sladden, T.L. Shaw.

For 1968: L. Bitensky, J.W. Bradbeer, A.P. Hughes, A.P.M. Lockwood, J.S. Ryland, N. Sunderland, P.N.R. Usherwood.

For 1969: R.B. Austin, A. Booth, B.M.H. Bush, D.W.T. Crompton, G. Shelton, W.D.P. Stewart, K. Taylor.

For 1970: H.C. Bennet-Clerk, D.N. Butcher, R.D. Butler, J.M. Dodd, C.J. Duncan, D.M. Guthrie, I.D.J. Phillips.

For 1971: A.C. Allison, J. Coombs, P.S. Davies, D.A. Dorsett, D.H. Jennings, B.C. Loughman, W.T.W. Potts.

For 1972: Rachel M. Leech, S.H.P. Maddrell, P.J. Mill, N.A. Mitchison, J.M. Palmer, A.R. Rees, P.J. Syrett.

For 1973: K. Bowler, E.T. Burtt, G.G. Henshaw, K.C. Highnam, T.A. Mansfield, J.A. Raven, E.R. Trueman.
E.J. Binyon and A.F. Dyer for one year as replacements.

For 1974: M. Burrows, P.E. Howse, E.L. Leafe, B.V. Milborrow, T.F. Slater, H. Smith.

MEETINGS

The conference of experimental biologists held at Birkbeck College in December, 1923, which turned out to be the inaugural conference of the Society for Experimental Biology, set a pattern for the meetings which followed it. This meeting, organised by the Editorial Board of the *British Journal of Experimental Biology*, brought together botanists, zoologists and physiologists to hear papers covering a wide range of experimental biology. The programme of this first meeting is reproduced here.

CONFERENCE OF EXPERIMENTAL BIOLOGISTS

You are invited by the Editorial Board of *The British Journal of Experimental Biology* to attend a Conference at BIRKBECK COLLEGE, BREAMS BUILDINGS, LONDON, E.C.4 on Friday and Saturday, 21st and 22nd December, 1923, for the purpose of considering and proceeding with the formation of an Association to promote intercourse, discussion, and facilities of publication among biological workers engaged in experimental lines of enquiry.

PROGRAMME

FIRST SESSION

Friday, 21st December ... ... 10 a.m. to 1 p.m.

In the Chair: E.J. Allen, F.R.S.

E.J. Allen	Fragmentation and Regeneration in Syllids
E. Ponder	Cell Lysis
T.S.P. Strangeways	Differentiation and Redifferentiation in Animal Tissues
F.A.E. Crew	New Data on Intersexuality in Fowls
D.R.R. Burt	Heteromorphosis in *Hydra*. Eye-transplantation in Amphibia
Lancelot Hogben and W. Schlapp	The Vasomotor Activity of Pituitary Extract throughout the Vertebrate Series

SECOND SESSION

Friday, 21st December ... ... 2 p.m. - 5 p.m.

In the Chair: Professor Ruggles Gates

R.R. Gates	Inheritance of Flower Size in Œnothera
J.L. Hammond and F.H.A. Marshall	The Physiology of Reproduction in the Rabbit
J.S. Huxley, A.F. Leney and J. Fulton	Experiments on Amphibian Growth and Metamorphosis
R.E. Chapman	Tropic Responses of *Helianthus* Stems in CO_2
J.A. Latter	Preliminary Account of the Basis of Crossing-over in *Lathyrus*
C. Diver	Inheritance of Sinistrality in *Limnæa*
W.C.F. Newton	Observations on Chromosome Form and Number
G.S. Robson	The Genetic Behaviour of the Keeled Form in *Paludestrina*
Exhibits:–	
P.D.F. Murray and J.S. Huxley	The Behaviour of Embryonic Tissue Grafts in Chick Embryos

THIRD SESSION

Saturday, 22nd December ... ... 10 a.m. - 1 p.m.

In the Chair: J. Barcroft, F.R.S.

J. Barcroft, F.R.S.	Respiration in the Lower Organisms
H. Munro Fox	The Influence of Light on Tissue Respiration
SYMPOSIUM ON CELL MECHANICS –	
J. Gray	The Mechanism of Mitosis
H. Graham Cannon	The Mechanism of Mitosis
C.F. Pantin	The Nature of Amoeboid Movement
G.R. de Beer and J.S. Huxley	Dedifferentiation by Starvation in *Aurelia*
Exhibits:–	
J.R. Baker	The Sex Chromosomes of the Drake
Lancelot Hogben and A. Walton	Transplantation of the Male Organ of Bidder into Castrated Female Toads

FOURTH SESSION

Saturday, 22nd December ... ... 2 p.m. - 5 p.m.

In the Chair: F.A.E. Crew
(Managing Editor, *The British Journal of Experimental Biology*)

Meeting for discussion of the formation of an Association of Experimental Biologists.

It was common in the early meetings for papers concerning experimental studies on both plant and animal material to be included in the same session, and for small symposia with three or four speakers to be organised within one of the sessions. The size of the meetings grew, with increased numbers of papers and consequently more sessions, and by the end of the 1930's it became necessary to organise parallel sessions within the Conferences. Separation of botanical and zoological papers into separate sessions had by then become usual, and the use of parallel sessions made it possible to concentrate botanical papers which were still rather few at that time, and encourage the participation of botanists in the Society. Since that time botanical and zoological sessions have run simultaneously for at least some of the time during general meetings of the Society. The number of papers submitted has continued to increase and meetings in recent years have often involved three parallel sessions by the addition of joint sessions of common interest or alternative sessions for botanists or zoologists. During the first few years there were about 3 zoological papers submitted for every one botanical paper; botanical participation has steadily increased throughout the history of the Society to 1 botanical paper for every 2 zoological papers in the late 1930's and to an almost equal number of botanical and zoological papers in the 1960's.

Since 1926 it has been usual for the Society to hold three general meetings each year, with the Annual General Meeting in London in either December or January. This sequence has only been broken during the early years of the war, and in the summer of 1958 on the occasion of the International Congress of Zoology meetings in London. The number of meetings was increased to four per year in 1946 with the introduction of the annual Symposia, which in the earlier years were held in July, but now take place in September. Occasional joint meetings with other organisations were held, for example with the Genetical Society, and at some other meetings joint sessions with other groups have been organised, as at the Cambridge meeting in December, 1941, when the Institute for the Study of Animal Behaviour joined in some zoological sessions; collaboration between societies has also been a feature of several of the symposia.

In 1946 an invitation to the Society to take part in a joint meeting in Holland was received from Professor G.J. van Oordt. The Membership of the Society was asked to reply to a circular concerning the invitation; opinion was overwhelmingly in favour of acceptance, and a successful meeting was held in Utrecht in April, 1947. This began a series of International Meetings held alternately in Holland (1947, '51 and '55) and in England (1949, '53 and '57).

These international meetings arose because of the chance friendship between Prof. L.J. Audus and Prof. J. van den Honert in a Japanese prisoner-of-war camp in the Dutch East Indies. The strength of biology in Holland was indicated by a large membership of the Society there, so that the Dutch were by no means junior partners in the meetings. The first meetings were characterised by a sense of liberated Europe, and discussions ranged far into the night, accompanied by much Dutch gin or English beer; the Society set up a hospitality fund, and especially in such fields as morphogenesis, the meetings gave rise to active exchange of workers between laboratories and much fruitful collaboration. This was also the start of a high degree of social organisation accompanying the Society's meetings.

Some tentative contacts with Danish biologists had been made as early as 1950 with thoughts of a joint meeting, but no firm proposals emerged until 1952, when it was learned that a number of Danish biologists would be visiting Bristol for the Colston Symposium on Cell Physiology to be held in April, 1954. It was agreed that Danish biologists should be invited to a meeting of the Society to be held in Bristol immediately following the Colston Symposium. The International meeting held in Cambridge in April, 1957 was attended by Dutch and Scandinavian biologists, and has been followed by joint meetings of the three groups of biologists in Copenhagen (1959 and '65), Amsterdam (1961), Oxford (1963), Copenhagen (1965), Wageningen (1967), York (1969), Gothenburg (1971) and Nijmegen (1974).

The 100th meeting (incorrectly called a centenary by some people) took place in Cambridge in July, 1955, and was especially memorable for a review paper by V.H. Blackman at the age of 84, showing complete awareness of modern developments in Botany, a racy paper by Huxley and a fine sermon by Crew. There was an exhibition of members' hobbies, varying from yacht making to sock knitting, illuminated MSS to ballroom dancing, and the first performance of a piano sonata by Gregory.

Meetings have been held in most of the British Universities and University Colleges, as well as in some research establishments. The following is a complete list of the meetings of the Society held up to the present date:—

1. Birkbeck College, London, 21-22 December, 1923.
2. Oxford, 27-28 June, 1924.
3. Cambridge, 19-20 December, 1924.
4. King's College, London, 29-30 May, 1925.
5. University College, London, 7-8 January, 1926.
6. Marine Laboratory, Plymouth, 17-18 April, 1926.
7. Edinburgh, 17-19 July, 1926.
8. Bedford College, London, 10-11 January, 1927.
9. Cambridge, 19-20 April, 1927.
10. Sheffield, 16-17 June, 1927.
11. Imperial College, London, 21-22 December, 1927.
12. Oxford, 23-24 March, 1928.
13. Glasgow, 6 September, 1928 (and 7 September with Brit. Ass.)
14. University College, London, 14-15 December, 1928.
15. Manchester, 19-20 April, 1929.
16. John Innes Institution, 14-15 June, 1929.
17. London School of Hygiene and Tropical Medicine, 20-21 December, 1929.
18. Cambridge, 15-16 April, 1930.
19. Birmingham, 8-9 July, 1930.
20. Bedford College, London, 19-20 December, 1930.
21. Edinburgh, 28 and 30 March, 1931.
22. Rothamsted, 10-11 July, 1931.
23. University College, London, 18-19 December, 1931.
24. Oxford, 15-16 April, 1932.
25. Marine Laboratory, Plymouth, 9 and 11 July, 1932.
26. King's College, London, 15-17 December, 1932.
27. Cambridge, 24-25 March, 1933.

28. Leeds, 7-8 July, 1933.
29. University College, London, 18-19 December, 1933.
30. Oxford, 23-24 March, 1934.
31. Edinburgh, 13-14 July, 1934.
32. London School of Hygiene and Tropical Medicine, 17-19 December, 1934.
33. Cambridge, 15-16 April, 1935.
34. Manchester, 12-13 July, 1935.
35. Imperial College, London, 18-20 December, 1935.
36. Birmingham, 2-4 April, 1936.
37. Bristol, 6-8 July, 1936.
38. University College, London, 17-19 December, 1936.
39. Oxford, 22-24 March, 1937.
40. Leeds, 7-9 July, 1937.
41. London School of Hygiene and Tropical Medicine, 20-22 December, 1937.
42. John Innes Institution, 28-30 March, 1938 (with Genetical Society).
43. Aberdeen, 6-8 July, 1938.
44. Royal Veterinary College, London, 19-21 December, 1938.
45. Cambridge, 12-14 April, 1939.
46. Marine Laboratory, Plymouth, 13-14 July, 1939.
47. Birkbeck College, London, 19-20 December, 1939.
48. Oxford, 16-17 April, 1940.
49. Sheffield, 19-20 December, 1940.
50. Cambridge, 18-19 December, 1941.
51. Zoological Society, London, 16-17 April, 1942 (with Genetical Society).
52. Glasgow, 23-24 July, 1942.
53. London School of Hygiene and Tropical Medicine, 21-22 December, 1942.
54. Reading, 13-14 April, 1943.
55. Cambridge, 22-24 September, 1943.
56. Imperial College, London, 4-5 January, 1944.
57. Oxford, 12-13 April, 1944.
58. Edinburgh, 4-5 July, 1944.
59. London School of Hygiene and Tropical Medicine, 2-4 January, 1945.
60. Manchester, 27-28 March, 1945.
61. Rothamsted, 20-21 September, 1945.
62. Imperial College, London, 1-3 January, 1946.
63. Newcastle, 16-17 April, 1946.
64. Cambridge, 8-12 July, 1946, Symposium 1.
65. Glasgow, 25-27 September, 1946.
66. University College, London, 8-10 January, 1947.
67. Utrecht, 11-14 April, 1947 (International).
68. Oxford, 28 July-1 August, 1947, Symposium 2.
69. Bangor, 30 September-2 October, 1947.
70. King's College, London, 5-7 January, 1948.
71. Bristol, 31 March-2 April, 1948.
72. Edinburgh, July 1948, Symposium 3.
73. Leeds, 28-30 September, 1948.
74. Imperial College, London, 4-6 January, 1949.
75. Oxford, 6-8 April, 1949 (International).
76. Cambridge, 18-22 July, 1949, Symposium 4.
77. Birmingham, 21-23 September, 1949.
78. Queen Mary College, London, 4-6 January, 1950.
79. Cambridge, 12-14 April, 1950.
80. Sheffield, 3-7 July, 1950, Symposium 5.
81. Marine Laboratory, Plymouth, 27-29 September, 1950.

82. University College, London, 3-5 January, 1951.
83. Leiden, 1-7 April, 1951 (International).
84. Bristol, 9-13 July, 1951, Symposium 6.
85. Glasgow, 26-28 September, 1951.
86. Bedford College, London, 2-4 January, 1952.
87. Manchester, 2-4 April, 1952.
88. Oxford, 7-11 July, 1952, Symposium 7 (with Genetical Society).
89. Southampton, 22-24 September, 1952.
90. University College, London, 18-20 December, 1952.
91. Sheffield, 13-17 April, 1953 (International, Dutch).
92. Bangor, 13-17 July, 1953, Symposium 8.
93. Durham, 22-25 September, 1953.
94. King's College, London, 6-8 January, 1954.
95. Bristol, 5-8 April, 1954 (International, Danish).
96. Reading, 21-23 July, 1954.
97. Leeds, 13-17 September, 1954, Symposium 9.
98. Bedford College, London, 5-7 January, 1955.
99. Groningen, 27 March-2 April, 1955 (International).
100. Cambridge, 13-15 July, 1955.
101. Oxford, 18-24 September, 1955, Symposium 10.
102. Birkbeck College, London, 4-6 January, 1956.
103. Edinburgh, 11-13 April, 1956.
104. Liverpool, 17-19 July, 1956.
105. Aberystwyth, 10-14 September, 1956, Symposium 11.
106. Imperial College, London, 2-4 January, 1957.
107. Cambridge, 4-9 April, 1957 (International, Dutch and Danish).
108. Belfast, 23-26 July, 1957.
109. University College, London, 16-20 September, 1957, Symposium 12.
110. University College, London, 18-20 December, 1957.
111. Newcastle, 15-18 April, 1958.
112. Reading, 15-19 September, 1958, Symposium 13.
113. Queen Mary College, London, 16-18 December, 1958.
114. Swansea, 8-10 April, 1959.
115. Copenhagen, 11-15 August, 1959 (International).
116. Bristol, 6-11 September, 1959, Symposium 14.
117. Birkbeck College, London, 5-7 January, 1960.
118. Nottingham, 6-8 April, 1960.
119. Hull, 19-21 July, 1960.
120. Southampton, 12-16 September, 1960, Symposium 15.
121. Bedford College, London, 3-5 January, 1961.
122. Amsterdam, 11-14 April, 1961 (International).
123. Aberystwyth, 18-20 July, 1961.
124. Birmingham, 10-15 September, 1961, Symposium 16.
125. Queen Mary College, London, 2-4 January, 1962.
126. Glasgow, 10-12 April, 1962.
127. Marine Laboratory, Plymouth, 17-19 July, 1962.
128. Edinburgh, 3-8 September, 1962, Symposium 17.
129. Queen Elizabeth College, London, 1-3 January, 1963.
130. Exeter, 3-5 April, 1963.
131. Oxford, 16-19 July, 1963 (International).
132. Cambridge, 10-14 September, 1963, Symposium 18.
133. Middlesex Hospital Medical School, London, 2-4 January, 1964.
134. Nottingham, 7-9 April, 1964.
135. Cardiff, 14-16 July, 1964.

136. Swansea, 8-12 September, 1964, Symposium 19.
137. University College, London, 4-6 January, 1965.
138. Aberdeen, 6-8 April, 1965.
139. Copenhagen, 26-31 July, 1965 (International).
140. St. Andrews, 6-10 September, 1965, Symposium 20.
141. Imperial College, London, 4-6 January, 1966.
142. Birmingham, 29-31 March, 1966.
143. Durham, 12-14 July, 1966.
144. Sheffield, 5-9 September, 1966, Symposium 21.
145. Westfield College, London, 3-5 January, 1967.
146. Wageningen, 3-7 April, 1967 (International).
147. Brighton, 18-20 July, 1967.
148. Oxford, 4-8 September, 1967, Symposium 22.
149. Birkbeck College, London, 2-4 January, 1968.
150. Bristol, 26-29 March, 1968.
151. Glasgow, 16-18 July, 1968.
152. Norwich, 2-6 September, 1968, Symposium 23.
153. Queen Mary College, London, 1-3 January, 1969.
154. Manchester, 9-11 April, 1969.
155. York, 14-18 July, 1969 (International).
156. University College, London, 8-12 September, 1969, Symposium 24.
157. Birmingham, 6-8 January, 1970.
158. Leicester, 7-9 April, 1970.
159. Dublin, 21-23 July, 1970.
160. Wye College, and Canterbury, 7-11 September, 1970, Symposium 25.
161. Queen Elizabeth College, London, 5-7 January, 1971.
162. Southampton, 31 March-2 April, 1971.
163. Göthenburg, 20-23 July, 1971 (International).
164. Bangor, 6-10 September, 1971, Symposium 26.
165. University College, London, 4-7 January, 1972.
166. Lancaster, 11-13 April, 1972.
167. Dundee, 11-13 July, 1972.
168. Oxford, 27 August-1 September, 1972, Symposium 27.
169. Sheffield, 2-5 January, 1973.
170. Swansea, 10-12 April, 1973.
171. Reading, 24-26 July, 1973.
172. Westfield College, London, 27-31 August, 1973, Symposium 28.
173. Leeds, 2-4 January, 1974.
174. Nijmegen, 9-12 April, 1974 (International).
175. Cambridge, 16-19 July, 1974. Fiftieth Anniversary Meeting.

SYMPOSIA

The Symposia originated as a result of discussions between J.F. Danielli and C.F.A. Pantin, who were concerned to introduce in Britain a means of fostering research in the field of experimental biology similar to that which had been provided by the Cold Spring Harbour Symposia in the United States. Danielli put this suggestion to the Council of the Society in March, 1943, and preparations were made to hold a symposium at the first opportunity after the war. Initial plans were considered by Danielli and the Secretaries of the Society at that time, T.A. Bennet-Clark and J.Z. Young; Danielli later replaced Young as the Zoological Secretary and shared with Bennet-Clark

the preparations for the first symposium.

At one time a symposium on "Cellular Respiration" was envisaged, but it was decided during 1945, in view of important lines of research being pursued in this country at that time, to change the topic to "Nucleic Acids", and a committee of specialists was formed to advise the Secretaries on the planning of the programme of the symposium. At the end of 1945 Bennet-Clark resigned from the position of Botanical Secretary and was replaced by R. Brown. Brown and Danielli were responsible for the organisation of the first symposium meeting, which took place in September, 1946, at Cambridge, and the subsequent production of the first symposium volume was also in their capable hands.

Arrangements were made with the Company of Biologists for the publication of symposium reports on behalf of the Society, and the Society agreed to assume full financial responsibility. The Company of Biologists negotiated an agreement with Cambridge University Press under which the symposia would be printed and distributed by the Press under terms similar to those involved in the production of the *Journal of Experimental Biology*. The Society had not at that time sufficient funds to back the symposia alone, and the launching of the symposia was only made possible by grants towards the expenses of running the symposia and printing the reports. The early symposia were supported by such grants from Imperial Chemical Industries, the Rockefeller Foundation, the British Council and Courtaulds Limited.

Such was the faith of the Society in the success of the venture that the planning of a second symposium on "Growth" began in July, 1946, some time before the first was held. Brown and Danielli, as Secretaries of the Society, continued to organise the symposia and edit the reports, but it soon became evident that the load of symposium and general organisation was too heavy and the duties of Symposium Secretary and Society Secretary were separated. The two Symposium Secretaries worked alternately on planning and editing successive symposia, and the Society Secretaries were responsible for the local arrangements of the meetings. A small committee of Council was later set up to assist the Symposium Secretaries in planning and policy matters.

With the continued success and growth of the symposia, the organisation and particularly the financial aspects of the symposia were making too great an additional burden on the officers of the Society. As a result, it was decided to appoint a third symposium officer to relieve the Symposium Secretaries of some of the administrative work of the symposia and to look after the symposium accounts. It was also agreed that the Symposium Secretaries should be paid for their duties in editing the symposium volumes in the same manner as the editors of most other scientific publications, and that where necessary, an alternative editor could be appointed to complete

the editing of the symposium volume.

Discussions prior to this expansion of symposium organisation in 1954 and experience over the following few years led to the present pattern of administration. Subjects for symposia are considered in the first place by the Symposium Committee, which is composed of the three symposium officers, one of the general officers of the Society and two elected members who are not necessarily Council members; additional members may be co-opted as required. Suitable topics are then submitted for comment to steering committees of specialists. As a result of their response, recommendations for subjects, together with suggestions for speakers, places and dates of symposia, are put before the Council of the Society, and if these are approved the further direction of the symposium is in the hands of the two Symposium Convenors (formerly the Symposium Secretaries), with the help of the Assistant Secretary (Symposia), who has come to be known as the Symposium Secretary. The convenors normally hold office for four years, and during this term of office they organise and edit the reports of two symposia, the two convenors acting in alternate years.

A full list of Symposia and a list of the Symposium Officers is given below.

S.E.B. Symposia, with Year of the Meeting, Venue and Editor of Volume.

I	Nucleic Acid (1946) Cambridge: J.F. Danielli and R. Brown.
II	Growth, Differentiation and Morphogenesis (1947) Oxford: J.F. Danielli and R. Brown.
III	Selective Toxicity and Antibiotics (1948) Edinburgh: J.F. Danielli and R. Brown.
IV	Physiological Mechanisms in Animal Behaviour (1949) Cambridge: J.F. Danielli.
V	Carbon Dioxide Fixation and Photosynthesis (1950) Sheffield: R. Brown.
VI	Structural Aspects of Cell Physiology (1951) Bristol: J.F. Danielli.
VII	Evolution (1952) Oxford: R. Brown.
VIII	Active Transport and Secretion (1953) Bangor: J.F. Danielli.
IX	Fibrous Proteins and their Biological Significance (1954) Leeds: R. Brown.
X	Mitochondria and other Cytoplasmic Inclusions (1955) Oxford: F.K. Sanders.
XI	Biological Action of Growth Substances (1956) Aberystwyth: H.K. Porter.
XII	The Biological Replication of Macromolecules (1957) University College, London: F.K. Sanders.
XIII	Utilisation of Nitrogen and its Compounds by Plants (1958) Reading: H.K. Porter.
XIV	Models and Analogues in Biology (1959) Bristol: J.W.L. Beament.
XV	Mechanisms of Biological Competition (1960) Southampton: F.L. Milthorpe.
XVI	Biological Receptor Mechanisms (1961) Birmingham: J.W.L. Beament.

XVII	Cell Differentiation (1962) Edinburgh: G.E. Fogg.
XVIII	Homeostasis and Feedback Mechanisms (1963) Cambridge: G.M. Hughes.
XIX	State and Movement of Water in Living Organisms (1964) Swansea: G.E. Fogg.
XX	Neuronal and Hormonal Mechanisms of Integration (1965) St. Andrews: G.M. Hughes.
XXI	Aspects of the Biology of Ageing (1966) Sheffield: H.W. Woolhouse.
XXII	Aspects of Cell Motility (1967) Oxford: P.L. Miller.
XXIII	Dormancy and Survival(1968) Norwich: H.W. Woolhouse.
XXIV	Control of Organelle Development (1969) University College, London: P.L. Miller.
XXV	Control Mechanisms of Growth and Differentiation (1970) Wye College and Canterbury: D.D. Davies.
XXVI	The Effects of Pressure on Organisms (1971) Bangor: M.A. Sleigh.
XXVII	Rate Control of Biological Processes (1972) Oxford: D.D. Davies.
XXVIII	Transport at the Cellular Level (1973) Westfield College, London: M.A. Sleigh.

Symposium Officers

Secretaries and Convenors

J.F. Danielli 1945-1954	R. Brown 1945-1954
F.K. Sanders 1955-1957	H.K. Porter 1954-1958
J.W.L. Beament 1958-1961	W.T. Williams 1959-1960
G.M. Hughes 1962-1965	G.E. Fogg 1961-1964
P.L. Miller 1966-1969	H.W. Woolhouse 1965-1968
M.A. Sleigh 1970-1973	D.D. Davies 1969-1972
C.J. Duncan 1974-	D.H. Jennings 1973-

Administrative Secretaries

J.F. Sutcliffe 1955-1958
G. Chapman 1959-1962
J. Edelman 1963-1966
P.J. Syrett 1967-1970
E. Naylor 1971-

JOURNALS AND PUBLISHING

The expansion of experimental studies in biology in the years after the First World War made clear the need for a journal for the publication of the results of these researches. Two groups of workers, in particular, found ways of meeting this need. At Cambridge, J. Gray had been largely responsible for the separate publication of the Biological Sciences part of the *Proceedings of the Cambridge Philosophical Society*, the first number of which appeared under Gray's editorship in August, 1923. Another group of biologists independently founded the *British Journal of Experimental Biology*, whose first number was published by Messrs. Oliver and Boyd in Edinburgh in October, 1923, with an Editorial Board under the Chairmanship of F.A.E. Crew.

The appearance of two journals in this new field could have limited the success of both, but, thanks particularly to G.P. Bidder, a way out of the dilemma was found. The Editorial Board of the *British Journal of Experimental Biology* called the meeting of experimental biologists at Birkbeck College in 1923 at which the Society for Experimental Biology was formed, and this Society quickly gathered a nucleus of influential biologists. Bidder persuaded a number of biologists, mostly members of the Society, to buy shares in a limited liability company, the Company of Biologists, incorporated in October, 1925, with the object of owning and publishing scientific journals. The Company bought the *British Journal of Experimental Biology* from the original publishers, and Gray was persuaded to become the editor of the Journal. Printing of the Journal was transferred to Cambridge University Press, and the word "British" dropped from the title. The Board of the Company is responsible for the financial side of publication and for the appointment of editors, but not for editorial policy. The *Biological Proceedings of the Cambridge Philosophical Society* was not destroyed in this reorganisation, but was transformed into the *Biological Reviews*, which has become well known under H. Munro Fox, editor since 1926, and another supporter of the Society since its foundation.

The Company of Biologists was only able to continue the publication and expansion of the *Journal of Experimental Biology* by raising further capital and by grants in aid of publication. Further shares were sold, some of these being bought by the Society itself, and the Society also negotiated grants from the Scientific Publication Fund of the Royal Society. Shareholders in the Company did not receive any dividend from their investment, but they did see the development of one of the world's leading biological journals. In 1952 the subscriptions of the shareholders were repaid and the Company was reorganised as a company limited by guarantee without share capital; as a result of this change the Company of Biologists was able to obtain recognition as a charity, and a large number of members of the Society became members (guarantors) of the Company.

The *Journal of Experimental Biology* was edited by Gray from 1925 to 1955, during which time it had grown in size as well as reputation. In the earlier years a few botanical papers were published in the Journal, but later these became very rare, and the Journal became entirely zoological in the 1940's. In 1952 J.A. Ramsay joined Gray to assist in the editorial work, which had grown with the increase in size of the Journal: Gray himself retired from the editorship in 1955, and was succeeded by V.B. Wigglesworth. Under the editorship of Wigglesworth and Ramsay the Journal maintained its distinguished record and continued to grow. Publication of two volumes a year commenced in 1965 (Volumes 42 and 43). Wigglesworth and Ramsay retired in 1973 and J.E. Treherne was appointed in their place. He is assisted by two Associate Editors and an Editorial Board of fifteen.

While the zoological membership of the Society was being well-served by the *Journal of Experimental Biology*, the botanists in the Society were concerned about the maintenance of interest in their side of the Society. In 1937 a botanical sub-committee of Council considered ways of improving the facilities offered by the Society to its botanical members. Among the suggestions that were approved by the Council was a link with the *New Phytologist*. In order that botanists should come to learn more about the activities of the Society it was arranged that the *New Phytologist* would print a short account of the botanical proceedings of the Society's conferences shortly after each meeting, these accounts to be descriptions of the communications and discussions written by the Botanical Secretary. It was also arranged that members of the Society could obtain the *New Phytologist* at a preferential subscription rate. The reports of botanical proceedings continued for only a few years, but the connection allowing preferential subscription rates to Society members still persists.

The *New Phytologist* was founded by A.G. Tansley in 1902. Tansley was both Editor and Publisher of this new journal, which set out to publish botanical information for both teachers and research workers, including review articles and book reviews as well as research papers within its scope. For thirty years Tansley edited the journal and established it as a botanical publication of repute, and his good work was continued for another period of thirty years by A.R. Clapham, H. Goodwin and W.O. James, during whose editorship the association with the Society began. In 1962 J.H. Burnett, J.L. Harley and C.D. Piggott became the editors. Additional editors have been appointed during the past ten years, and there is now an Editorial Board of six.

In spite of the value of the *New Phytologist* to botanical members of the Society, it was clear that many members wished for some further publication in plant physiology. In 1946 the Council set up a sub-committee on publication of botanical papers, and, as a result of their report, it was decided to start a *Journal of Experimental Botany*. This decision led to discussions with the Company of Biologists and with Oxford University Press. After detailed negotiations with Oxford University Press, the Council of the Society agreed to accept the offer of the Press to publish the Society's *Journal of Experimental Botany* on the condition that ownership and full financial responsibility for the Journal should rest with the Press, while the Society should guarantee editorial policy. It was regarded as essential that no one other than the nominees of the Society should be appointed to edit the Journal. The botanical publications sub-committee was asked to appoint an Editorial Committee and prepare recommendations for the position of Editor.

Arrangements for the publication of the *Journal of Experimental Botany* were completed during 1949, and the first number of the new Journal appeared in 1950 under the editorship of T.A. Bennet-Clark. The following

were appointed to the Editorial Committee:—E. Ashby, G.E. Blackman, R. Brown, F.G. Gregory, W.O. James, W.H. Pearsall, R.D. Preston and M. Thomas. Bennet-Clark continued as editor for ten years, and this period saw the Journal firmly founded as a scientific publication of international repute. From 1960 to 1965 the Journal was edited by W.T. Williams, and during the years up to 1964 the editorial committee changed only by the addition of Bennet-Clark and H.K. Porter and the loss of Gregory. In 1965 the Editorial Committee was replaced by an Editorial Board consisting of the Editor and 3 assistant editors, who were H.K. Porter, R.D. Preston and F.J. Richards. L.J. Audus became Editor of the Journal in 1966 and F.L. Milthorpe replaced F.J. Richards as an assistant editor. W.W. Schwabe and L. Fowden replaced Milthorpe and Porter in 1967 and 1968 respectively. Under the editorship of Audus the Journal continued to grow, and it became recognised as one of the leading Journals publishing in plant physiology, biochemistry and biophysics. In 1973 the size of the Journal was increased from four parts to six per year, and the Board was increased to five by the addition of P.J. Peterson and E.A. MacRobbie. Audus relinquished the editorship in 1974 and was replaced by C.P. Whittingham.

The *Quarterly Journal of Microscopical Science* first appeared in 1853 under the editorship of Edwin Lankaster and George Busk, and continued until 1860, when the first series ended after 8 volumes. A new series of the Journal commenced under the same authors in 1861. In 1869 E. Ray Lankaster joined his father as editor, and during the 6 years after the retirement of Edwin Lankaster in 1872 there were several joint editorships. Ray Lankaster became the sole editor in 1878, and held this position until 1920, although the various volumes acknowledge the co-operation of many other biologists with the editor. The new editor appointed in 1921 was E.S. Goodrich, who served the Journal for 25 years. During this period the *Quarterly Journal of Microscopical Science* was bought by G.P. Bidder, and in 1947 Bidder made a gift of the Journal to the Company of Biologists. The new editors who took over at this time were J.R. Baker and C.F.A. Pantin; the former continued as editor until 1964, but Pantin retired from the editorship in 1960 and Baker was joined by H.G. Callan in 1962. Upon Baker's retirement A.V. Grimstone was appointed joint editor with Callan, and these two editors saw the publication of the 160th and last volume of the New Series of the *Quarterly Journal of Microscopical Science* in 1965. In 1966 the first volume of a new Journal appeared under the same editors; this was the *Journal of Cell Science*, which is to be regarded as successor to the "Q.J."

The association of the Society with the *Quarterly Journal of Microscopical Science* and the *Journal of Cell Science* has been only informal. After the acquisition of the *Quarterly Journal* by the Company of Biologists in 1947, the Company suggested that the Society might like to enter into an arrangement whereby the members of the Society could purchase the

Quarterly Journal at a reduced rate to be agreed from time to time between the Company and the Council of the Society. The Society has negotiated financial aid for the Journal, but has no responsibility for the appointment of the Journal's editors, or control of editorial policy; however, the Society can express its views on the policy of the journals published by the Company of Biologists through the two directors who are appointed annually to the Board of the Company on the Society's nomination.

Early in 1943 the Society made an approach to the Bureau of *British Chemical and Physiological Abstracts* to ask whether they would be willing for the Society to become a Supporting Society of the Bureau and to be responsible for the abstracting of papers in journals dealing mainly with comparative and general physiology. L.G.G. Warne, G.P. Wells and the Treasurer took part in discussions with the Bureau, and, as a result of their report to Council, it was agreed at the Annual General Meeting of December, 1943 that:

1. The Society would make an annual payment of £50 to the Bureau.
2. The Council of the Society would nominate two members (a plant physiologist and a comparative animal physiologist) to be co-opted to the Editorial Committee of the Aiii abstracts, where they would act as assistant editors.
3. Members of the Society would be entitled to receive Section Aiii of the abstracts at a price of 50/- in place of the usual price of 90/-.

G.P. Wells and L.G.G. Warne were nominated by the Society as the first representatives of the Society on the Editorial Committee of the Aiii abstracts. From 1947 the Society's nominees to this committee were made ex-officio members of Council. The Council's representatives on this Committee were as follows:-

L.G.G. Warne 1943-1952
G.P. Wells 1943-1948
F.K. Sanders 1949-1952

In 1950 Council expressed dissatisfaction with *British Abstracts* and it was suggested that the Society should withdraw its financial support, but no action was taken at that time. Council heard in late 1952 that *British Abstracts* was likely to have to cease publication and in 1953 the Society ceased to pay the £50 subscription and also ceased to distribute the abstracts to members.

A new publication entitled *British Abstracts of Medical Sciences* was announced in 1954 which might take the place of *British Chemical and Physiological Abstracts*. Initially there was no intention to include botanical subjects and Council felt that the Society could not give active support.

However, it was later decided to set up a sub-committee to consider the possible requirements of members of the Society. As a result of discussion between the representatives of the Society and representatives of Biological and Medical Abstracts Limited, the Council of the Society recommended to the Annual General Meeting in January, 1957 that:

1. The Society should accept the invitation of 27th July, 1956 to be represented on the Council of Biological and Medical Abstracts Ltd.
2. The Society would ask for representation by two members, one botanical and one zoological.

The Society suggested people to act as section editors and helped to find abstractors for this collaboration between the Society and Biological and Medical Abstracts. The first products of this collaboration in sections on Experimental Botany and Experimental Zoology appeared in Vol. 6 No. 2 of *International Abstracts of Biological Sciences* in June, 1957. The abstracts were published by Pergamon Press, who were responsible for profit and loss of publishing: Biological and Medical Abstracts Ltd. were a company limited by guarantee, and the Society for Experimental Biology had no financial commitment from its representation on the Council of Biological and Medical Abstracts Ltd. other than a £10 guarantee in respect of each Council Member nominated by the Society.

Representatives of the Society on the Council of Biological and Medical Abstracts were also members of the Council of the Society. Representatives were nominated by Council and in 1957 it was agreed that the normal term of office should be 4 years with times of retirement arranged to give a two-year overlap of representation.

Nominees of the Society have held office on the Council of Biological and Medical Abstracts as follows:

R. Brown 1956-1958
P.F. Wareing 1959-1962
C.L. Mer 1963-1973
C.B. Goodhart 1956-1960
G.M. Hughes 1961 1973

Publication of the abstracts ceased in 1973, owing to lack of financial support.

THE GEORGE BIDDER LECTURES

In 1969, Council decided to hold an Annual Lecture to be delivered at the Christmas Meeting by a distinguished member of the Society. The Board of the Company of Biologists agreed to finance an Honorarium, payable to the Lecturer, and to publish the lecture in the *Journal of Experimental Biology* without charge to the Society. Subsequently by agreement with the Editor of the *Journal of Experimental Botany*, it was

decided to publish the lecture in that journal on occasions when the lecture was to be delivered by a botanist. The agreement with the Company was arranged for a period of six years in the first instance.

Council elected to call this annual lecture after G.P. Bidder who played a prominent role in the early history of the Society and in the formation of the Company of Biologists.

The first four George Bidder lecturers and the titles of their lectures were as follows:—

January 1971	Sir Vincent Wigglesworth, F.R.S. *"Experimental Biology, Pure and Applied"*
January 1972	Dame Honor Fell, F.R.S. *"Tissue Culture and its Contribution to Biology and Medicine"*
January 1973	J. Heslop-Harrison, F.R.S. *"Self and Non-Self: Recognition and Response"*
January 1974	J.Z. Young, F.R.S. *"Brains and Worlds - the Cerebral Cosmologies"*