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The Association of members of the Kew staff past and present

Events of 1977

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**Royal Botanic Gardens
Kew**

ROYAL BOTANIC GARDENS, KEW

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EDITORIAL

In the last edition of the Journal I tried to promote the existing image of a more 'personalised' Committee, and Editor, to encourage members to identify better with the thinking of ourselves, and the apparent policy at Kew. To some extent my approach succeeded in that several letters and articles have been forthcoming, together with some interesting news of old friends and colleagues.

The tightening up of subscriptions arrears has vastly improved the accuracy of our records system, and has in turn provided extra income and prevented much wasted expenditure on postage of literature to 'unknown addresses'. The mammoth job of pruning the address list has been carried out, but if further errors or omissions are noticed it would be appreciated if you would inform the Membership Treasurer. As the Journal is to be circulated with Dinner notices in early May in future, to economise on postage, it is essential that members let us know their changes of addresses immediately. Deadline for all copy will be 1st February in future, but preferably earlier, so that addresses must be notified to me at least by that date if they are to be accurate in the Journal which goes to print one month later.

Please also write c/o The Secretary with your news for publication, we *are* interested, and send an up to date black and white photograph for record purposes if you have not already done so. Also for record purposes we need to know of the passing away of ex-Kewites together with suitable details so that we may accord them the usual mention.

Thus members can see that to keep their Journal and Association alive and kicking, they must further contribute to it and build up the records, the ideas, the strength in numbers and the friendships. And attend the meetings, the Annual Dinner, and the A.G.M.!

RICHARD C. WARD, Editor.

* * *



W. NELMES
President 1977-78

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President 1977-78

Born in a small village near the town of Berkeley in Gloucestershire, William Nelmes attended Berkeley school until 1916 when he left to take the place of his brother in the garden of a small estate, where his father was head gardener. (His brother Ernest entered Kew in 1920 as a student gardener).

In 1923 he moved from this quiet country district to the outskirts of London—to the nurseries of Messrs L. R. Russell whose headquarters were in Sheen Road, Richmond. The greenhouses at Syon Park, (the seat of the Duke of Northumberland) were acquired and utilised as a branch nursery, and this is where our President worked until he entered Kew as a student gardener in 1926. During the three years at Syon Park he became closely acquainted with Kew and made many friends in the Gardens.

The first year was spent in the Temperate House under Mr. C. P. Raffill and then to the Decorative Department under Mr. John Coutts—six months in the propagating section at the "Melon Yard" and the remaining eight months in the Conservatory (No. 4). In 1926 he was awarded the prize for the best collection of British wild plants (Bean's Trees and Shrubs'') and in 1927 was appointed Secretary of the Gardens British Botany Club.

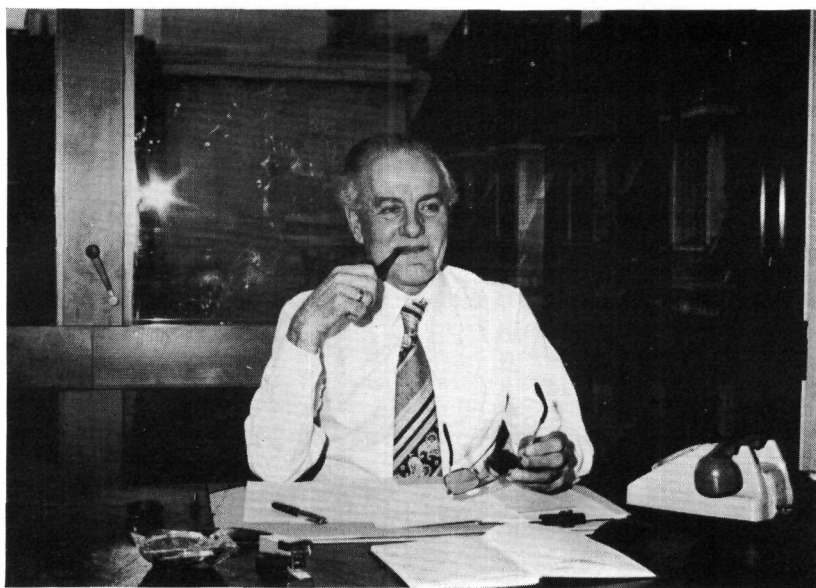
It was because of his interest in botany that he readily accepted (in 1928) the offer of a post in the Cardiff Parks Department to look after the botanical collection of plants at Roath Park. Mr. Andrew Pettigrew was Chief Officer of the Cardiff Parks and Mr. Harry Butcher (Vice-President of the Guild 1971-73) in charge of the Roath Park area of the city. Here he spent several very happy years under these former Kewites.

In 1934 came the appointment of Park Superintendent at Newport and, in 1936, back to Cardiff as Director after the death of Mr. Pettigrew. Mr. Nelmes remained at Cardiff until his retirement in 1967. During the war most of the public open spaces were utilised in one form or another for food production—mainly allotments, but in the years that followed very extensive recreational schemes were put in hand. The Empire Games were staged in the city in 1958.

In the 1940's came the award of the M.B.E. and the A.H.R.H.S. and in 1966 the highly prized V.M.H.

In 1965 he was appointed a member of the Committee of Inquiry set up by the Government to review policy on Allotments. For several years he acted as Consultant to the Roads Beautifying Association.

Since his retirement eleven years ago he has lived in the small village of Aylburton on the edge of the Forest of Dean, and during these years he has converted a grass field into a garden of exceptional interest.



W. E. STOREY
President Elect 1977-78

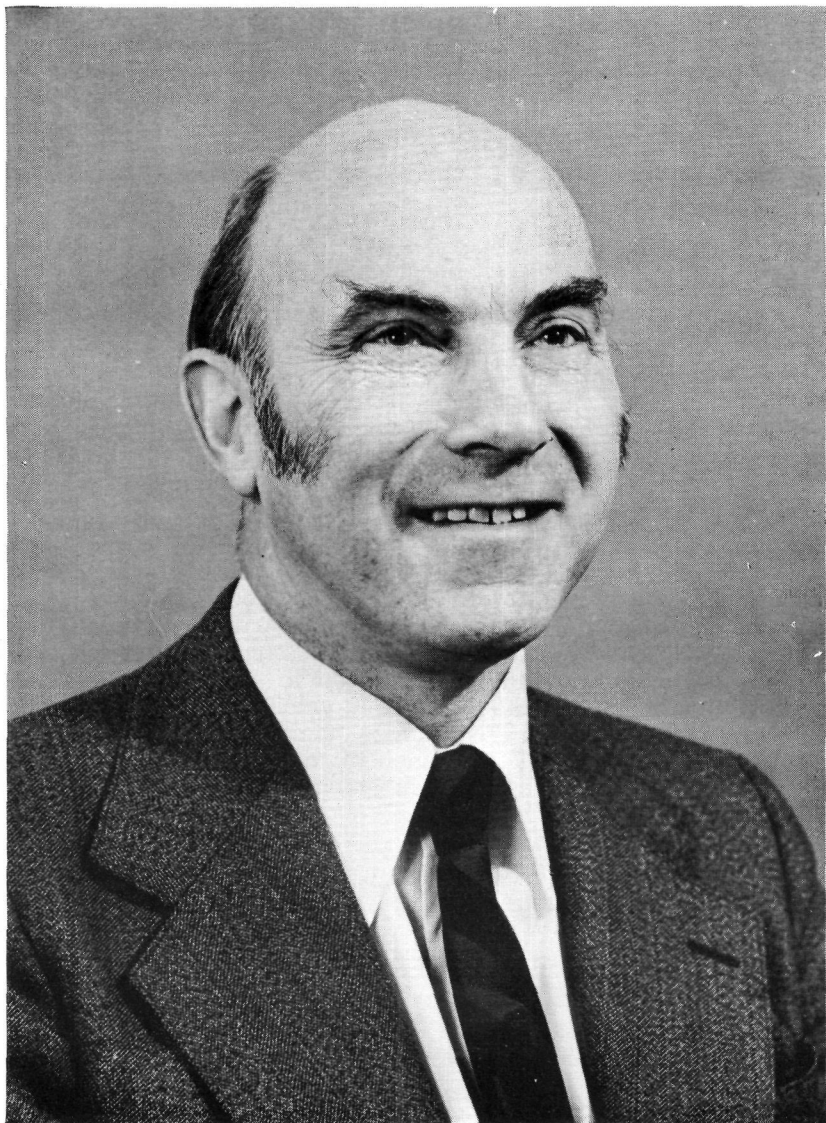
William Edward (Ted) Storey was born in 1918 near Manchester and attended Grammar School there. Interest in plants started with trees at an early age, and it is said that he was familiar with the common and botanical names of most of those around his home by the age of ten. Not surprisingly, a choice of career presented no difficulty, although scholastic eyebrows were raised to record height amidst regrets about waste of education when he firmly resisted pressure to enter the world of accountancy or banking, for which he apparently had facility but no interest, in favour of horticulture, for which he had interest if little facility.

He started work at the age of 17 in the gardens of Cheadle Royal Hospital, Cheshire, which at that time was notable in the North for the excellence of its exhibitions of stove and greenhouse plants, fruit and vegetables. Academic instruction was obtained by evening tuition at Manchester University. With entry to Kew as top priority he moved to Manchester Parks Department early in 1939 but within a few months approaching hostilities and call up disrupted progress, and service in the Royal Artillery in places as diverse as the Orkney Islands and Burma intervened.

Nearly seven years later, back in Manchester to pick up the threads, he was directly responsible to the late Jack Cheek (Vice President 1976/78) who it seemed could hardly wait to get the embryo President Elect out of the department! At all events, October 1946 saw ambition realised by entry to Kew. He worked in the Tropical, Temperate and Arboretum departments and at the end of studentship was appointed foreman in the Arboretum Nurseries where he remained for four years. His most notable contribution to life at Kew was probably the formation of the Music Circle which was expected to last three months but eventually ran for nearly 20 years.

An urge for wider horizons led him to join the London County Council Parks Department in 1952 where two years later he became first holder in the country of the new post of Arboricultural Officer and was able to introduce a staff of some 60 skilled operatives to training in sound pruning principles. Success in this field aroused much interest in other local authorities who, within a few years, started similar organisations of their own, which in turn stimulated the provision of Arboricultural training at County colleges.

On the formation of the Greater London Council in 1965 Mr. Storey succeeded another distinguished Kewite, Hubert Taylor, and was appointed head of the Horticultural Division of the new Parks Department, which position he still holds. Contact with Kew has remained close and for some years he was one of the external examiners for the Diploma. Early membership of the Institute of Park and Recreation Administration led to Chairmanship of the London Branch and membership of Council in 1966/67 and he currently represents the Institute on the Tree Council. He is Chairman of the South East Branch of the Arboricultural Association and has sat on several British Standards Committees.



PETER S. GREEN
Vice-President 1977/78

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Vice-President 1977/78

After graduating in 1948 from King's College, London, (after six years in the army) Peter Green took up his first appointment at Birmingham University when he was Assistant Lecturer and then Lecturer in Taxonomy. On first taking up the appointment special arrangements were made between Sir Edward Salisbury, who was Director at the time, and his friend, Professor Walter Stiles, the professor at Birmingham, for Peter Green to come to Kew for training in taxonomy.

It is often said that taxonomists are born and not made, but even those who are born need guidance and an introduction to the vast array of plant families and the corresponding literature. From September 1948 to January 1949 Peter Green worked in the Herbarium at Kew under Mr B. L. Burtt and Dr. W. B. Turrill, the then Keeper, and left for Birmingham only at the end of the week before his first lecture was to be given on the Monday. After this he returned many times for visits varying from a few days to a few months.

In 1952 he left Birmingham University and took an appointment as Senior Scientific Officer at the RBG, Edinburgh, where he worked in the herbarium and began a long-term interest in the cultivated and wild representatives of the family *Oleaceae*. Early in 1961 he emigrated with his wife and family to the USA, taking up appointment as Horticultural Taxonomist at the Arnold Arboretum of Harvard University. Here he continued to work on the *Oleaceae* and with a visit to the south-west Pacific became involved in the flora of that remote but beautiful part of the world.

Six years later, they crossed the Atlantic again and Peter Green came to Kew for the first time as a member of the staff in 1966.

He first worked in the Australasian Section of the Herbarium, of which he became head on the retirement of Dr. Ronald Melville, and in 1971 he was appointed Deputy Keeper. When in 1976 Professor J. P. M. Brenan became Director he was appointed to the joint post of Keeper of the Herbarium and Deputy Director.

THE QUEEN'S SILVER JUBILEE 1977—CHILDREN'S DAY

By JOHN SIMMONS, Curator

As Royal Gardens it was appropriate for us to contribute to the year's Silver Jubilee celebrations in a rather special way. When all the ideas were put together they were seen to form two separate occasions, one a Children's Day and the other an Evening Concert (described separately in this Journal). The concept of an event for local children came together from various suggestions such as the Borough of Richmond for local interest celebrations, the theme of youth was taken from the Appeal by H.R.H. Prince Charles, and the planting of endangered tree species related to the Duke of Edinburgh's links with conservation interests, recalling also that Queen Charlotte's Cottage and its grounds were given to Kew and the Nation in 1897 by Queen Victoria in commemoration of her Diamond Jubilee.

In the event the afternoon consisted of two separate but parallel programmes (arranged to fit in with other Jubilee events in the Borough,) one for the school children and one for a Royal visit by H.R.H. Princess Alexandra and the Hon. Mr. Angus Ogilvy. All



Tree techniques. Left to right, Hon. Angus Ogilvy, Princess Alexandra, The Director, Professor Brennan, The Curator, John Simmons, looking at Janice Short of the Tree Surgery Unit



Princess Alexandra chatting to local children

of the Junior School children from the Kew Ward Primary Schools were invited along with the children of Kew Staff. The schools were asked in advance to submit entries for a painting and poetry competition, the work to be displayed on the day with prizes presented by the Mayor of Richmond.

Each school was allocated its own tree to plant, with the children to help with the planting—using trowels! The trees were carefully chosen to represent examples of species that are threatened with extinction in the wild, such as *Zelkova abelicea* from Crete now reduced to a small stand in a single location. Each child then received advance notes on the tree that their school was to plant, with a description of the tree to be planted by Princess Alexandra. A weeping silver lime (*Tilia petiolaris*) was chosen as the Royal Tree because of its "silver" connotation and as a replacement for an ageing specimen in the original (Princess Augusta's) part of the Arboretum. The recent loss of the 200 year old elms planted on the Orangery lawn mounds in the time of Princess Augusta created the need for replacement trees that will grow tall enough to form screens against the visual encroachment of buildings overlooking the north end of the Gardens. Thus the *Tilia* was planted appropriately as part of a group of this species on a site originally landscaped by a previous Royal Princess.

At Kew extensive advance preparations for the Children's programme were started early in the year. Cambridge Cottage was chosen to be the reception point where, on the day, each child was to receive an identifying label badge marked "I am a Silver Jubilee" and a Kew pencil to help them on to the first event, a mystery trail. Chaperoned groups were to be taken by the trail's rhyming clues via different routes to items of interest, each manned by a third-year student, who would provide the next clue. The Palm House tunnel was chosen as the culmination of the trail thus this old underground service way from the Shaft Yard was duly decorated and illuminated by our long-suffering local PSA Depot. Following after the trail was a chance of a ride on a tractor-towed skip and see demonstrations of tree-climbing and power saws in operation. The Lower Nursery offered good accommodation for a tea party after which the ceremonial tree plantings could be arranged, with the prize giving completing the day for the children.

The Royal programme was arranged to run simultaneously so that while the children were occupied with the mystery trail there would be time for Her Royal Highness and Mr. Ogilvy to meet Gardens staff and see something of the collections. Starting with a Main Gate reception the itinerary included a visit to the Ferneries to see the new landscape changes, to the Grass Garden now established as a popular item of interest, and the Ice Well which it is intended to open permanently to the public in commemoration

of the Jubilee Year. The landscape surrounding the Ice Well was redeveloped especially for this occasion to bring the building into view from its previously heavily screened situation. Originally an important household requirement on the Kew Estate this fine example of an Ice Well was landscaped into the boundary of the 1760's botanic garden. A visit to the Orangery was also a must especially as it had on display a Jubilee Photographic Exhibition illustrating twenty five years of change at Kew.

From this point the programmes were to intermingle with Princess Alexandra and Mr. Ogilvy meeting children, teachers, parents and staff on a 'walk about' through the areas where the tree climbing, tea party and tree planting were to occur.

The morning of May 27th dawned bright and sunny, the Gardens looked immaculate with lawns, trees, shrubs, herbs and glass-houses all groomed to expectancy for the day—nothing out of place. Trees awaiting planting, food to be eaten, landscapes and exhibitions to be inspected. If it had rained !

Suddenly the children were arriving, crocodiles of excited faces glowing with anticipation, rushing from clue to clue, popping up from the Palm House tunnel wide-eyed, half with fright and surprise, gleefully riding on the trailers, getting the tree gang to carve initials on segments of sawn logs, filling the Lower Nursery with pop drinks, goodies and an unbelievable noise. Seeing and meeting a "real" Princess, proudly planting their trees, cheering the prize winners. Such a day!

And through it all the Princess and Mr. Ogilvy finding time to meet a great many of the people whose work and effort on that day, and every other, go to make Kew one of the foremost tourist attractions in the country.

Certainly much was learnt of new ways to use our facilities at Kew in an educational role and the children all learnt a great deal about plants through an enjoyable experience—learning with pleasure.

As always the occasion itself is just the tip of the organisational iceberg but I am pleased to acknowledge now the contributions by the Curatorial, Supervisory and all LCD Section staff, Mr. Pemberton and the students, Miss Angel and the Museums staff, Mr. Brooks and the Administration staff and Constabulary and last but not least Miss Chabert and the Planning Unit staff who were at the centre of events. To list everyone would be to fill this Journal with a revised staff list but to those not mentioned personally may I extend my sincere thanks and congratulations for making this day such a happy and successful Jubilee celebration.

ANNUAL GENERAL MEETING OF THE KEW GUILD, 1977

By Immediate Past Secretary, SIMON OWENS

On Saturday, September 10th, 1977, more than 40 members gathered in the Jodrell Lecture Theatre at 2.30 p.m. for the Annual General Meeting. The President, Dr. K. Jones, took the Chair, accompanied on the platform by the Hon. Secretary, Dr. S. J. Owens, and the Hon. Treasurer, Mr. R. H. Rule. The President then welcomed all those assembled.

All members present then stood in tribute to Kewites who had died since the last A.G.M.: Mr. D. V. Wells (1936, Vice-President) Mr. J. Cheek (1929, Vice-President) and Mr. M. Corbett.

Apologies for absence were received from the following members:—

Miss A. Chabert (Hon. Membership Treasurer); Mr. C. Isles; Mr. B. Nash; Mr. E. C. Neighbour; Mr. S. W. Rawlings; Mr. M. J. S. Sands (Hon. Asst. Sec.); Mr. R. Ward, Mr. J. Woodhams and Mr. A. Woodward.

There were no matters arising from the minutes of the A.G.M. of 1976.

The Committee then reported as follows:

The Hon. Treasurer, Mr. R. H. Rule, first presented the accounts for the year ended 31st December 1975. The financial position was sound, the excess of income over expenditure being £732.58½. Comments were invited about the presentation of the Wakehurst Booklet in the accounts but none was forthcoming. Mr. Brown proposed the adoption of these accounts and offered congratulations to the Treasurer. Mr. Hepper seconded the proposal and added that thanks should also be given to the auditors.

Mr. Rule then presented the accounts for the year ended 31st December 1976. After some difficulty most of the books had been obtained but nothing had been recorded in any of them. There was £146.11p in unpaid bills and £205 in cheques for the dinner which were out-of-date. All bills were paid and £32 of the dinner money which was uncovered will appear in the 1977 accounts, £24 was lost. The tea money not paid until February will also appear in the 1977 account. The balance was obtained from bank statements and the financial position showed an excess of income over expenditure of £2,021.97½p. This was due to the increase in donations to the Award Scheme, sales of the Wakehurst Booklet, there being no journal printed, and from dividends from the deposit accounts.

The accounts of the half-year to 30th June 1977 were then presented. The current account showed a £938.13p surplus, £1,743.04p was on deposit and £1,352.51p in the Award Scheme, £40 of the Award Scheme money had been paid to student, Mr. T. Vaughan, in part payment for a botanical trip. Expenditure had been very heavy with payments being made for two journals and

6,000 copies of the Wakehurst Booklet.

Professor Brenan asked if consideration could be given to separating the Award Scheme balance sheet from the rest of the Guild account. He felt that a comparison could then be made of the Award Scheme profit and loss on a day to day basis with that of the rest of the Guild.

Mr. Rule then presented the report of the Membership Treasurer which showed that £878.89p had been paid in subscriptions. This was more than £200 over the previous year.

A lengthy discussion then followed when Mr. Rule proposed that the collection of past journals might be offered for sale at 10p a copy. (A stock of 2800—total value £280). He felt that this would have three advantages. Firstly it would be a means of disposing of the unrealistic nominal value (£77.32p) placed on the journals in the accounts. Secondly it would release much needed space and thirdly members might like to obtain past copies at a reasonable cost so that they might obtain an entire set. He also pointed out that only 46 copies (at £2 each) had been sold over the last six years and these were only journals of the previous ten years. However there were no complete sets available and some years were only represented by a few volumes. Mr. Proctor felt 25p per copy was a more realistic price and Miss D. Catlin suggested that expert advice might be sought as to pricing. The Secretary proposed an auction while Mr. Hepper suggested that libraries might be willing to purchase them, Mr. Cherry thought that an offer might be made to overseas members. Mr. Brown saw that although complete sets were valuable, incomplete ones were not. He also pointed out that postage overseas would involve considerable expense. Professor Brenan asked if there were any long runs and was told that some did exist. Mr. Burgess proposed that the book value should be kept at £77.32p.

The President thanked everyone for the discussion and Mr. Storey proposed that the matter should now be left to the Committee. Mr. Nelmes seconded the proposal.

The President told the meeting that the comments and criticisms at the last A.G.M. had been well-founded and that no-one had realised how grave the situation with regard to the finances had been. The Treasurer and Auditor had found the accounts very difficult to prepare and check and both had expended considerable effort. The situation was now much better. A proposal to adopt the accounts was put forward by Mr. Brown and seconded by Mr. Cherry who both added that Treasurer and Auditor should be congratulated.

Mr. Pattison reported on sales of badges and ties. A new badge had been ordered at a purchase price of £3 to replace the old hand stitched type which now would have cost £15. Sales of ties had fallen off and there was to be another order for scarves.

The membership had been covered in the Treasurer's report in

the absence of Miss Chabert although Mr. Rule pointed out that 437 tea notices accounts had been sent out to U.K. members.

In the absence of Mr. R. Ward, the Editor's report was read by the Secretary—"With the excellent co-operation of an extremely active Committee, together with that of several other individuals and Rowling Printers, it was possible to print the 'Events of 1976' Journal in time for the Annual Dinner. As the previous 1975 Journal was sent out 6 weeks before it was not possible to have the '76 Edition as up-to-date and accurate as I would have liked.

As previously mentioned in the Journal and agreed in Committee, those members who are not paid up-to-date will not receive a Journal. A large amount of revenue is lost to the Guild each year by unpaid subscriptions and difficulties with updating. The address list is currently being updated—a mammoth task! Members are requested to keep the Guild informed of changes of address. The previous practice of showing members' 'abbreviated professions' is being dropped. Only life members and past Presidents will be noted".

Since so much difficulty had been experienced with the 1975 Journal members appreciated the speedy production of that for 1976. Mr. Proctor considered that the new style cover was a detriment to the Journal and appeared to be change for the sake of change. He also pointed out that between 1966 and 1976 only three of the past Presidents have had a dagger beside their name—Messrs. Everett, Knight and Stock. He volunteered aid with proof reading having already some considerable experience. Mr. Milne-Redhead suggested that a garden's staff list might be included in alternate years. Mr. Clift pointed out that staff were to be named in the members list and Mr. Brown added that it was very difficult to know where to stop with staff for there were many non-industrial staff, preparers, etc. and these could not be included. He offered his hearty congratulations to Mr. Ward.

The Annual Dinner had been one week earlier than the previous year and 125 members and guests had come, a drop of 12 on the previous year. The guest speaker was professor A. Bell from Kings College, University of London, who stepped in at short notice when the chosen speaker was found to retract his acceptance. His speech was admirable, fitting the occasion exactly. Mr. Nelves voiced congratulations both to those who made the speeches and those who organised the dinner.

The dinner price continues to rise unavoidably and so attempts to cut costs to a minimum are being made. A buffet was seriously considered as an alternative by this year's Committee but was found to be less easy to manage and in fact did not reduce the ticket price. An example of cutting costs at the dinner this year was the saving on postage of those journals given out at the dinner. Next year's dinner is at Imperial College on Wednesday, May 24th.

The sudden deaths of both Vice-Presidents this year meant a

sad break with tradition with regard to representation of the Guild at the Student's Prize-Giving. The President was unanimously proposed by the Committee as representative and so Professor K. Jones was on the platform together with the Director and Mr. Rochford, the guest speaker. The prize-giving was very well attended and Mr. Rochford's views on the future of commercial horticulture supplied much food for thought.

Retiring members of the Committee were as follows: Messrs. P. H. Bridgeman, C. M. Erskine, B. A. Nash and A. Woodward, with Mr. D. Hunt as Auditor. In addition the resignation of Dr. S. J. Owens (Hon. Secretary) was accepted. The President thanked the retiring members for their help. It was agreed that Mr. J. Cheek who died suddenly earlier in the week should hold the office of Vice-President posthumously for a second year. Mr. D. V. Wells who had died earlier in the year and Professor K. Jones had now completed their terms as Vice-President and President respectively.

Mr. A. Paterson began the Award Scheme report by announcing that the picture by Mary Grierson raffled at the Kew Club Christmas party in aid of the Scheme had been won by past president Mr. Cherry. Meetings of the Award Scheme sub-Committee had taken place monthly and there had been considerable discussions particularly relating to fund raising by appealing to commercial suppliers to Kew, and to the Soirée to be held in the evening after the A.G.M. £1,200 capital was in the Scheme and financial help had been given to Miss S. Leche (1976) and Mr. T. Vaughan (1977) for tours of botanical interest abroad from interest raised on the capital. Mr. Paterson finally appealed to members to give the Scheme their strongest support.

Election of officers, members of Committee and Auditor. Mr. Nelmes was unanimously elected as President for the year 1977-1978. On taking the Chair he said that he accepted the Presidency with the greatest pleasure and thanked the retiring President for his considerable efforts. Committee members and officers were elected en bloc, their names appearing at the beginning of the Journal.

Considerable and often heated discussion then followed when a proposal (discussed and worded by the Committee) was put forward by Mr. Hart and seconded by Mr. Clift. The proposal was to change Rule 3 so that membership would be open to members of Kew Staff who had previously been allowed only a Committee recommendation. The proposal read "*Proposal to change Rule 3a.* to read: Membership shall be open to all past and present members of the staff of the Royal Botanic Gardens, Kew, provided that they have worked at Kew or Wakehurst continuously for a minimum of 1 year. Students who enrol for a minimum of 1 year will be eligible to become members without this prior qualification. The term "Kewites" where used herein or by the Guild in other publications

shall mean a paid-up member of the Guild. Delete 3b and change 3c to 3b". The motion was defeated by 23 votes to 12. The A.G.M. proposed that the Committee might give consideration to a definition of staff at R.B.G. Professor Brennan added that even after consideration of what had been said ways ought to be found to broaden the membership of the Guild for the benefit both of the Guild and of Kew.

Mr. Cherry, under Any Other Business, proposed a vote of thanks to Dr. Owens for his work during the year as Secretary. Mr. Hepper exhibited a seat cushion of the Guild on display at St. Anne's Church which Mrs. Holttum had presented. A proposal to ask for the resignation from the Guild of a past Committee member was not accepted by the majority of members who felt that some sympathy should be shown.

The meeting closed and members retired to a fine tea in the Lower Nursery.

REPORT ON THE 1977 DINNER

By G. A. PATTISON, Dinner Secretary

The 1977 Dinner was held on Wednesday 18th May at the Imperial College Refectory, South Kensington when 125 members and friends attended, this being a further drop in numbers on the previous year.

Mr. G. Brown proposed the toast Our President, and Professor K. Jones replied. Our President then proposed the Kew Guild to which our response was given by the Director, Professor J. P. M. Brennan. Our Guest Speaker Mr. L. Darby of the Glasshouse Crops Research Institute was unable to attend and we are very thankful to Professor A. Bell, Professor of Botany Kings College, London for stepping in at the last minute. This of course made it a difficult problem for D. White the Students' representative who was the proposer as he had to re-learn the background of the speaker at short notice.

Visitors from overseas were Dr. H. Heine (1961) Paris and Miss E. Parking (1959) Saskatchewan, Canada.

The 1978 Dinner will be at the same venue on Wednesday 24th May and our Guest Speaker will be Miss E. Hess.

The provisional date for the 1979 Dinner is Wednesday, 23rd May.

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REPORT ON THE SALE OF EMBLEMS FOR 1977

The emblems, scarves, ties and blazer badges seem to be selling quite slowly, with 1977 sales being 3 scarves 7 ties 7 badges.

I have in stock at the moment ties at £1.25 badges at £3.00 and scarves which at the moment are on order and should be delivered by March and will cost £5.00.

Those interested should write to: G. Pattison, c/o R.B.G. Kew, enclosing a cheque which includes postage cost.

FUTURE KEW

By Professor J. P. M. BRENNAN, Director

Every year more than a million people visit the Royal Botanic Gardens at Kew and Wakehurst Place to appreciate their interest and enjoy their beauty. At the same time Kew is one of the world's leading research institutes in several branches of plant science. This blend of science and enjoyment carries on a tradition that has lasted for more than a century and is likely to control the general pattern of development at Kew for the foreseeable future.

In looking into the future, therefore, it is essential to bear these diverse but not uncomplementary needs in mind. In this short article, I will try to show that we are doing so by referring to the major developments, the D.V. and the Exchequer willing that I hope to see at least through to the bud stage, if not all to full fruition, during my tenure as Director.

It is convenient to consider these developments under two main headings: firstly buildings and, secondly, policy. The buildings are, so to speak, the frame within which the work and functions of the place are carried out. Besides being conspicuous, they are indeed important in their own right. 1977 was marked by a moratorium on public building works and this, although resulting in a setback for building plans at Kew, did give a welcome opportunity to take a careful look at the needs of the Royal Botanic Gardens for construction over several years to come. Some work, because it had started beforehand, was not affected by the standstill. An example is the much-needed reconstruction of the Temperate House, which is likely to take at least a couple of years to complete but which will, when finished, provide a vital area of glass for public display whose importance has been the more acutely felt during the time that the House has been unavailable. It is intended that the reconstruction will proceed part by part, so that the bringing into use after reconstruction of sections of the building for cultivation and display will not need to await the completion of the whole. Another example, too, is the fine new Alpine House which we hope to open formally in due course.

Most other major building is entirely in the future, though planning is at a more or less advanced stage. Probably the earliest start will be made on a new Administration Building, one of several major developments already agreed. The present Administration at Kew is centred in a quite small building not larger than a modest villa, pleasant in appearance and situation but totally inadequate for housing the various sections under one roof. The result has been that the Administration is now spread over the whole or parts of

three old buildings physically separated from the main one with consequent problems of communication and management. The provision of a sizeable new block to unify the Administration in one location is long overdue. Plans have been prepared and approved both by the Department of the Environment's PSA and the local authority, and it only remains for the work to start and be completed.

I also regard as a very important need the provision of a new Museum building. It will take staff, collections and exhibits at present housed in three quite separate buildings even more widely dispersed than those involved with the Administration. The present buildings are inadequate in the extreme, and modernisation beyond certain limits is economically prohibitive or structurally impossible. The reference collections housed in these Museums are certainly unique in Britain and probably in Europe, but the conditions under which they are stored are a disgrace to a national institution. Although planning is not as forward as it is for the new Administration Building, nevertheless outline plans have been made and a provisional site chosen near the present Aroid House, which, incidentally, was warmly endorsed at a recent visit of the Standing Commission on Museums and Art Galleries.

The Ferneries and the T-Range have grown over the years "like Topsy" in a haphazard and uncoordinated way, so that they now present problems which could be greatly lessened if these old complexes were replanned on a single site. Thought has been given as to how and where this might be done and it is hoped that in the not too distant future these plans will be finally put into effect.

It will be realised that the provision of new buildings will free space elsewhere previously occupied. Indeed this effect has been seen during the last year in Descanso House with the move of the Curator's Offices to their fine new location in Aiton House.

Looking into the future a new Administration and a new Museum building will each free important areas for other uses, particularly in Cambridge Cottage and Museum I. Already, detailed study has been made of how these areas might be utilised when they become vacant, but two purposes are perhaps worth special mention here. I hope that it will be possible to improve the accommodation for our Diploma Course Students both residentially and for study. I also hope that it will become possible to provide some restaurant facilities for the public at the north end of the Gardens. At present the majority of visitors enter the Gardens through the Main Gates, and it is easy to verify on any busy summer's day that the main concentration of visitors is in that area, where there are indeed so many features of interest. The present restaurant is inconveniently far away for many of our visitors, and something

more accessible would, I believe, be much appreciated. At present it is only possible to express this in the form of an intention: but wherever such a facility is located it can only be after careful preliminary study, which has not yet been carried out.

Much thought has also been given the future development of the Jodrell Laboratory, the Herbarium and the Library. Although the new Jodrell Laboratory was opened in 1964, the building is shared with the Diploma Course students and already there is an acute shortage of space for the various research activities carried out in the Laboratory. This is reflected in the facts that Biochemistry is centred in a separate laboratory overlooking the Melon Yard and that the transmission electron microscope plus associated laboratories are located at 47A Kew Green, an area partitioned from the Director's private residence. The release of some additional space on completion of the new buildings already mentioned may help to alleviate this problem, but ultimately, additional new buildings will probably be the only permanent solution.

The Herbarium and Library in their different ways both house reference collections of specimens or books which are always in a state of constant growth. This is both healthy and necessary. However, it poses almost perpetual problems of accommodation. The new Wing of the Herbarium and Library was opened as recently as 1969, but already accommodation is proving insufficient, and careful consideration has been given to ways and means of utilising the available space as well as to the provision of new accommodation. For example, the basement under Wing C of the Herbarium has been recently excavated and converted for much-needed additional storage space. Hanover House has not proved suitable for conversion to residential accommodation and this area, too, may be utilised. In addition, the possibility has been considered of perhaps using more effectively the "quadrangle area" enclosed by the four existing Wings. Although some of these problems have not yet reached any sort of crisis point, careful planning is needed beforehand in order to anticipate the problems rather than having to react to an unforeseen emergency.

The past ten years have seen spectacular developments at Kew's other Garden at Wakehurst Place in Sussex. These developments are guided and greatly helped by a distinguished Advisory Panel. In the near future the main new element in Wakehurst will be the reservoir at present under construction at Ardingly, an arm of which will extend northwards into the southern part of Wakehurst itself. This span of water should add a most attractive feature to an already beautiful landscape. It is intended that round this arm of the reservoir there should be a forest park with a public trail, with particular emphasis on conservation.

Clearly there will be an interval between the completion of the reservoir and the institution of the trail around it but it will, it is hoped, be a valuable new amenity. Thought is also being given to improve the restaurant facilities at present suffering from rather cramped quarters. Again, although it is too early to say what the final result will be, it is hoped both to improve the facilities available for visitors and to extend the use of the Mansion for public use.

Turning now to the research activities of the Royal Botanic Gardens, which are the basis upon which its international reputation as a scientific institution rests, the general comment can be made that the need for such research is as great as or greater than ever. The principal strand running through Kew's research activity is plant taxonomy and this is primarily centred in the Herbarium. The present activity there carries on a long tradition at Kew of providing *Floras* for countries or regions overseas. Areas at present being studied include East Africa, southern Africa, Cyprus, Iraq, etc. Most of these works are by their nature long-term. They are usually pioneer works dealing with areas whose plants are still imperfectly known and where the structure of their classification has to be established. Although changing politics abroad have imposed severe administrative and financial problems for some of these works, their need has not diminished and their completion must be an objective of the highest priority at Kew. Developing countries cannot exploit their wealth of vegetation and plants without knowing what is there and having access to information. Of course, in addition to these major works, a stream of research results, often by-products of floristic work, finds its way into print and this is likely to increase rather than decrease in the future. In particular Kew is outstandingly well-equipped among other similar institutions in the world to undertake revisionary research on large and difficult genera or groups. Uncertainty over generic limits has led to more troublesome name changes than most people realise, and this uncertainty often arises because research has been carried out on too narrow a basis, particularly with geographic limits. Taxonomic conclusions have been drawn from studies confined, say, to one country or continent where a world study might have led to different and better results. To take one example: a research project on the generic concept of *Senecio* has been started, *Senecio* being a worldwide genus including such diverse plants as groundsel, ragwort and the tree *Senecios* of the east African mountains as well as various succulent species. Is there one large genus (of over 1,000 species perhaps) or should portions be separated off? This sort of study is likely to play an increasing part in the future research programme at Kew.

The Jodrell Laboratory has a long and honourable tradition of research into several disciplines, particularly cytology, anatomy

and physiology. Present chromosome research based mainly on the family Commelinaceae is likely to lead not only to a better taxonomic understanding of the family but also to throw light on the processes of evolution. Work will also continue towards the completion of the studies on the systematic anatomy of the monocotyledons. At present a revised edition of the *Systematic Anatomy of the Dicotyledons* is in process of preparation under its original authors. This is likely to take some time to complete and no doubt will be a theme of the future research programme. These published works on dicotyledons and monocotyledons have given Kew an international reputation as an outstanding centre for plant anatomical research. Mention should also be made of the programme for the root survey at present being carried out in the Laboratory with financial help from the British Insurance Association. Over a period of two years, this is designed to throw light on the behaviour of roots of different tree species, particularly in relation to the damage that is caused to buildings by such roots, the cost of which, in terms of insurance, now runs into many £millions per annum.

Already the value has been clearly shown of taxonomic work based on as wide a range of evidence as possible; in other words, a classification based on morphology is more certain if it is supported by other evidence derived from, say, anatomy, cytology, pollen, etc. Conversely, taxonomic schemes based on morphology may be vital in interpreting research results in anatomy, cytology and plant biochemistry. Already co-operative research schemes have been set up in which the different Divisions of Kew each have their own important contribution to make. This pattern is likely to be repeated to an increasing degree in the future with consequential benefit to the results obtained.

During the last few years there has been increasing awareness of the vitally important part that institutions such as Kew have to play in plant conservation. In 1974 a Conservation Unit was set up based on the Herbarium and since then the International Union for the Conservation of Nature (IUCN) has financed a small secretariat to cover the input from Kew to the Threatened Plants Committee of IUCN. A recent product, demonstrating the efficiency of Kew in this field, is the list of European threatened plants prepared for the Council of Europe. Future activity will take place for Africa and ultimately for other areas also. The Collections and Library at Kew provide an important storehouse of information and material for assessing the distribution and status of many of the world's endangered species. The importance of the living collections in conservation is now fully realised and this awareness will be a continuing and important element in this future development. The resources of the Kew Seed Bank at Wakehurst are also of great potential value in conservation.

The computer has shown itself to be an important and efficient way of storing in a consultable way large quantities of information both for collections and libraries. Already the Living Collections at Kew are almost completely on computer, and preparations are at an advanced stage for computerising the Kew Record of Taxonomic Literature. Pilot schemes and planning have already taken place to look at the feasibility of putting the reference collections in the Museum and the Herbarium, and also the Index Kewensis on computer. However, such schemes are very costly and it is important to proceed cautiously, ensuring that each step is both feasible and likely to meet a genuine need among users.

I remarked earlier in this article that the need for the work that Kew is doing is as great now as it ever was. Although the political background has changed during the past few decades, the needs of developing countries to know their plant resources and vegetation before they can be fully exploited remain as urgent as ever. Those who live and work in Europe, which is at times lavishly supplied with reference works on plants, sometimes find it hard to visualise the not uncommon situation in tropical countries where there may be literally no modern Flora at all. There is thus still an urgent need for the sort of basic taxonomy that Kew has provided over the years and is still outstandingly well equipped to continue. Indeed the need for this sort of work was most clearly set out at the Stockholm Conference on the Human Environment in 1973. The urgency of the task has become much greater in the last few years. An increasing realisation has taken place of the speed with which fragile ecosystems, particularly in the tropics, can be greatly modified or even totally destroyed. Short-term gains too often win in the balance against long-term impoverishment. Undoubtedly many species of plant have become extinct over the last half-century and inevitably many more will do so over the next. The potential use of these plants will remain, alas, unknown but it must be part of the policy of Kew to ensure that as much knowledge as possible about the plants of the world is put on record before it is lost and that as much as possible of living heritage of plants is saved.

Against this background the need for holding a balance between the enjoyment of visitors to Kew on the one hand and the urgent needs of research on the other is obvious, and this must be an important element in the future policy of Kew. This is no new concept but it is one whose importance in the years ahead will be no less than it has been in the past. It is thus, I believe, possible to combine an institution maintaining its international reputation for fundamental research with a beautiful and often instructive setting.

I must record my grateful thanks to Mr. P. S. Green and Mr. S. Brookes for help in the preparation of this article.

STUDENTS PRIZEGIVING

Address by T. C. ROCHFORD on 9th September 1977 at the
Jodrell Lecture Theatre
(published verbatim)

Ladies and Gentlemen

Before presenting the awards to successful students your Director has asked me to make a few short remarks on the horticultural industry today.

I propose to divide these remarks into four sections coinciding with the main headings in your lecture programme.

First, therefore, the Plant and its Environment. With the best will in the world growers cannot escape the harsh realities of the general economic climate in the country at large, and there is no doubt that the industry has suffered at the hands of inflation. Innovation and change are essential, therefore, if growers are to continue. The larger commercial concerns have so far proved remarkably resilient under the onslaught, with only a few going under, and this compares well with the rising number of bankruptcies notified in other trades. We have also managed in difficult times to hold a labour force together and thus to retain many traditional skills in the face of rising pressure on employment in other industries.

Growers have suffered particularly from very steep and rapid increases in their major production costs associated with a fairly static level of demand for a luxury product. With a highly elastic market increases in productivity have led to declining marginal returns, and no grower has been able to afford the luxury of cutting back his production to maintain prices when to do so is to open the door to a flood of imports through non-grower wholesalers.

With a high level of fixed costs growers have little room for manoeuvre; one cannot go onto short working, for example, or a four day week, and the results of actions taken today are often not visible for some considerable time when the circumstances which gave rise to those actions may have changed completely.

The only thing the grower can do under the circumstances is to orient himself more closely to the market as a plant grows towards the light, and to shorten the chains of communication and minimise their risks many growers have developed or expanded their own wholesaling activities to compensate for the declining profitability of their growing operations.

A temporary shift in emphasis is not, however, going to ensure survival, and there is a tremendous need now to look at the object we produce and examine ways in which the varieties we grow can be made commercially more acceptable. One classic method of

reducing the price elasticity of the product is to broaden the demand base, but in spite of all the money poured into advertising by organisations and companies real growth in the market has remained static. This must surely be because of intrinsic faults in the product, either its retail price or its appearance, and it is in these areas that a major effort must be made to meet the demands of the 1980's.

At the Glasshouse Crops Research Institute in Littlehampton work is being undertaken on cucumber breeding to develop types with shorter internodes, tomatoes are being bred with resistance to *Cladosporium* and *Fusarium*, concentration on size and speed of hearting in lettuce is being given. Work too is needed in the ornamental sector but for obvious reasons such research cannot be financed by public funds. My own Company has an active product development policy which is run within the firm and I am sure that this is a trend which will continue. Particular factors which we are looking for which can affect the retail price are the development of varieties with shorter petioles which enable plants such as African Violets to be grown more densely for the same heat input or developing varieties which can be grown economically at lower temperatures. In the case of African Violets this would have a tremendous impact on costs as well as facilitating their distribution during the colder winter months.

Soil technology will become of increasing importance as supplies of organic growing substrates become exhausted and new methods are required here both by way of nutrient film techniques and the closely allied Hydroculture systems.

Turning to the next heading of Crop Protection the industry as a whole is becoming increasingly alarmed by reports that some of the leading names in agrochemicals are cutting back their research and development into chemicals for use in the horticultural industry. The reasons are understandable—the market in this country is very small and on the Continent it is already well catered for. The implications, however, are deeply disturbing. As an industry confronted with this problem we will have two options. Firstly to rely on a close acquaintance with new chemicals and methods developed abroad and secondly to institute our own experiments within our holdings using hitherto untested chemicals. This in turn is bound to place our competitors with more ready access to scientific research in a highly favourable competitive position. Managers will thus be increasingly required within the firms with a sound knowledge of entomology and mycology and able to understand the effects of the various types of chemical available so as to select those that are most suitable for research and development work within the enterprise.

More work needs to be done on the development of predator controls. Promising work has now been undertaken using

Verticillium lecanii in the control of aphids as well as *Encarsia formosa*.

Work, too, needs to be undertaken on biological controls for plant diseases as opposed to pests, and the University of Florida has opened up several promising avenues of research into naturally occurring antigens to *Pythium* and *Phytophthora* which occur in stream water. As these two diseases appear to be causing problems on an intercontinental scale, work in this field could well produce valuable results.

Coming to the third part of your programme—Horticultural Practices and Techniques, the most fruitful lines of development to my mind lie in the field of Plant Propagation. Meristemming and Tissue Culture are becoming more and more extensively investigated but their application in commercial enterprises in this country is, however, still limited by the lack of commercial expertise within firms and the high labour costs that are still associated with the operations. Progress on this front will, I am sure, be concerned with ways of reducing the labour and skill content in these operations with the use of precision machinery and the development of more generalised methods and nutrient solutions to the cultures. Work is at present limited to the rapid build up of new varieties on which sufficient premia can be earned to recoup the high costs of the technology involved.

Finally I would like to mention Planning Machinery and Management. Faced with rising costs and static demand for their products, growers are inevitably trying to increase productivity through planning better utilisation of people and assets. Computers have a major rôle to play here in helping growers to schedule their various crops more effectively, and to plan ahead for the peaks and troughs in labour utilisation, in order that they may be more evenly spread. My own Company has developed a crop scheduling programme for year round production of foliage plants that enabled us to achieve the same level of production from 20% less glass. However the move to a more accurate control of resources needs growers with an awareness of the need for and implications of modern management techniques. Numeracy in managers is now becoming as important as literacy.

Machinery for use in commercial enterprises is a difficult subject. In older glasshouses for example it is not possible to operate modern potting machines effectively and the mechanised systems for intensifying the use of space such as gantries and mobile benching will only come into their own as profits and confidence return to the industry and owners feel more disposed to plough back their gains into newer glass and machinery. In practice much of the newer machinery has a fairly negligible impact on the amount of labour employed in the area as the most labour intensive operation in any ornamental firm is the process of harvesting and

packing the crop. I am not a good enough visionary to be able to imagine a machine for grading and packing African Violets and development will therefore, I am sure, emphasise more the techniques to be adopted to use existing machinery rather than the use of new machines to meet existing techniques.

My rundown of the industry has of necessity been brief and consequently somewhat one sided. At the moment the wholesale value of the Horticultural Market is £182 million. Edible crops account for 48% of this market and unprotected outdoor crops account for an additional 31% of this market. The outstanding 21% represents protected ornamental crops of which the lions share goes to pot plants, which represent 4½% of the total market.

Within the industries supplying this market I can see opportunities for specialisation in Plant Breeding, Soil Technology, Crop Protection, Propagation and the developments of new practices and techniques. But above all, the industry will need competent all rounders with a good working knowledge of these areas, an understanding of modern management techniques and, above all, a love of the product they grow. In these difficult times I hope that growers of all kinds will continue to look to students who have successfully completed this course at Kew for the energy, enterprise and innovation required to help the industry into the next century.

Thank you very much.

* * *

**THE FOLLOWING DIPLOMAS AND PRIZES WERE
AWARDED TO STUDENTS ON PRIZEGIVING DAY—
FRIDAY SEPTEMBER 9th**

Diplomas

Honours

M. Bovey, S. D. Davis, R. B. Hayward, Miss S. M. M. Hunt.

Credit

S. C. Butler, G. Cunliffe, Miss H. Davies, D. Hardman, A. J. Henderson, A. P. Howard, Miss E. A. Leche, M. B. Park, P. R. Potter, D. J. Sawyer, Miss M. C. Spicer, J. J. Strudwick, W. Turp.

Pass

A. E. Burman, A. J. Evendon, R. J. Kemp, T. T. Smith.

Certificate of Attendance

R. A. Spymanski

Prizes

Ernest Thornton-Smith Travelling Scholarship—Miss E. A. Leche and A. J. Henderson*.

G. C. Johnson Memorial Prize—top student—S. D. Davis.

Kingdon-Ward Prize—best project/thesis—M. Bovey.

Landsman Bookshop Prize—best landscape design and construction—M. Bovey.

Sir Joseph Hooker Prize—G. Rice.

Matilda Smith Memorial Prize for best practical work—M. Bovey.

Dummer Memorial Prize—best weed collection—R. B. Hayward.

Proudlook Prize—runner up to the above—S. C. Butler.

Prize for best arboricultural plot—S. D. Davis.

Kew Guild Individual Study Prize (2nd best project)—S. C. Butler.

C. P. Raffill Prize—best paper in lecture competition—Miss M. C. Spicer.

Professor Keith Jones Cup—best paper to M.I.S.—M. B. Park.

Mutual Improvement Society's Prize—most active part in M.I.S.—R. J. Wassell.

The Metcalfe Cup—Highest examination markings in 2nd year—Mrs. J. S. Roberts.

Plant Identification Tests 1976/77—W. A. Lord and R. B. Hayward

Photographic Society Prize—S. J. Beardmore.

Students' Union Life Membership—S. C. Butler, D. Hardman, P. R. Potter.

*A. J. Henderson was awarded the 1976 funds which were unused the previous year.

The 1978 Prize-giving will be held at Kew on 8th September and any Guild Member wishing to attend may write in to the Supervisor of Studies, Mr Pemberton. Ed.



The 3rd year students on Presentation Day, September 9th, 1977

THE KEW STUDENTS

By JANE ROBERTS

Students' Union Rep., Kew Guild Committee

The Kew Diploma course has 60 Students this year.

*Denotes Kew Guild Member.

First Year (1977 intake)

S. Ashworth	G. Glemet
*C. Bennett	*R. P. Harrison
*J. L. Blatt	*I. G. Hodgson
*S. Bristow	*G. P. Jackson
*T. Casey	*P. J. McKenzie
*J. Compton	*S. McNamara
I. G. Lowe	*J. S. Morgan
*I. P. Crisp	*J. I. Osi
J. Fielding	*Miss A. E. Prodger
Miss P. J. Gibbons	J. L. Whitehouse

Second Year (1976 intake)

Miss A. F. Cozens	P. R. Astley
M. A. Adelowokam	*S. Goodenough
C. P. Bailes	*A. M. D. Hoog
*J. M. Beaumont	R. G. Ingall
*J. W. Beverley	C. R. Jeal
S. M. Browning	Mrs A. Mayo
Miss U. M. Buchan	Miss A. Roberts
Miss D. A. Cahill	P. R. Summers
D. G. Campbell	Miss B. M. Thompson
Miss J. L. Counsell	

Third Year (1975 intake)

S. J. Beardmore	*G. R. Riggs
*S. D. Cave	*Mrs. J. S. Roberts
*D. W. J. Coventry	*P. D. Robinson
*J. E. Ferguson	J. D. Sandham
W. R. Jennison	P. Shippies
*W. A. Lord	J. Swithinbank
A. P. Monaghan	S. A. Tubosum
*D. C. Parker	T. P. Vaughan
*J. G. Plummer	*Miss S. Vernon
G. J. F. Rice	*R. J. Wassell
	*D. White

In September 1977 we also welcomed two international trainees who will spend a year at Kew. They are * L. P. Wisch (USA) and A. M. Rano (Nigeria).

THE KEW STUDENTS' UNION 1977/8

Our thriving union is administered by the Executive Committee who were elected as follows:

President—Simon Goodenough.
 General Secretary—Barbara Thompson.
 Treasurer—Angela Roberts.
 1st year rep.—Bob Hamson.
 2nd year rep.—Ursula Buchan.
 3rd year rep.—John Plummer.
 Past President—David Coventry.
 Social Secretary—Philip Astley.

Other posts:

Photographic Secretary—Simon Beardmore.
 Athletics Secretary—Clive Jeal.
 Printing Secretary—John Beaumont.
 Kew Guild Rep.—Jane Roberts.
 Fête Chairman—Tony Lord.
 Fête Secretary—Jane Roberts.

The Union's main source of income is the annual fête. The report on the Kew Students' Union Grand Fête 1977:

* * *

FÊTE COMMITTEE REPORT

The Kew Students' Union Fête was held this year on the Green on 13th August. Despite the cloudy and at times even rainy weather, it was a tremendous success and £1,203.42 was raised for four charities. The Royal Gardeners' Benevolent Fund, The Richmond Philanthropic Society, The Multiple Sclerosis Society and the Kew Students' Union. The Fête was opened by Mr. Cyril Fletcher, a well-known gardening personality and there was a large range of stalls and entertainments including a Punch and Judy Show, and a display of Kung Fu. The most profitable stall this year was the plant stall which raised over £276, and was an example of how hard and consistently everyone worked on behalf of the fête, for the plants were raised and looked after solely by the students. It was not only a highly successful fête—it was also a very enjoyable one and the fact that over a thousand people attended it demonstrated how popular the fête is with the local people.

The Fête can only continue to be a success, however, if volunteers come forward to help with the organisation, the jumble collections, and on the stalls on the day. Please help us make next year's fête even better!

The money raised is being spent on financing clubs such as the Photographic Society and the Netball Team and also on social and athletic events.

SOCIAL SECRETARY'S REPORT

By P. ASTLEY

Events since September 1977 have been successful and enjoyed by those who attended. A Cheese and Wine Party was held in the Herbarium in September. During the following three months up to Christmas we constructed a Christmas Review. The work involved was very demanding, and at times frustrating, but all the effort was worth while. A successful and amusing evening was held on 16th December at St. Mary's Church Hall, Twickenham and 'played' to a full house. The following week 58 students and staff spent the evening at the Bull at Sheen for Christmas Dinner and a disco. A 24 strong choir sang Carols in abysmal weather in the Kew area but visits to the Curator and Prof. Brennan's house for drinks and mince pies en route cheered us all up, as did the visit to the Pubs on the Green.

Looking ahead it is hoped that we shall have a St. Valentine's Day dance, the New Student's party in September and another Christmas Review.

* * *

ATHLETIC SECRETARY'S REPORT

By C. R. JEAL

The Annual Relay Race which was held on May the 28th, around the new circular route was won by Writtle. Askham Bryan were second and the Ex-Kewites third. Kew Gardens managed a fourth but it is hoped that the 1978 relay will see Kew at least in the first three, with a good prospective winning team who made themselves apparent in the Round the Gardens Race. Namely Mike Huggowson, Paul Potter (an old horse who also won the clog and apron race ahead of Chris Bennet and Simon Goodenough), and Steve Ashworth who all put in fast times.

A very enjoyable staff v. student football match took place on October the 4th and resulted in a draw, staff captain Simon Owens doing well to co-ordinate his team to hold off the relentless student attacks. The Kew football team defeated the Greyhound Public House 3-2 after being challenged, and the Netball team now affiliated to the students Union is still going from strength to strength. Finally the draw for the Table Tennis Tournament will be announced soon.

* * *

The Union also subsidised the 2nd year students who organised their own weekend trip to Bickton in Devon to study ecology. This was very successful both educationally and socially and this year the 2nd year students are planning a similar trip to Norfolk. Future plans include buying equipment for use on the course (such as

drawing instruments) and there have been proposals for outings such as a summer picnic to Kenwood House.

Finally, the latest edition of the student's magazine (now called "Askew") came out at Christmas and was so popular that by January was completely sold out and out of print.

THE KEW MUTUAL IMPROVEMENT SOCIETY 1977/8

by Jane ROBERTS (Treasurer)

The K.M.I.S. is probably the most active society at Kew and for the past few years has had nearly 200 members.

There is a lecture every Monday during Autumn and Spring. We attract a wide variety of lecturers from well-known personalities such as Graham Thomas, Christopher Lloyd and Alan Bloom to those of the future—our own students, of whom six are entering the lecture competition. The subjects are equally varied—from Wall Shrubs to Celtic Mythology and from the Antarctic to Nigeria.

The spring term includes two general knowledge quizzes—the inter-departmental and the inter-college quizzes.

All meetings are held in the Jodrell Lecture Theatre at 6.30 p.m. Mondays. For a list of lectures please write to the Secretary K.M.I.S., c/o Jodrell Gate. Membership is only 50p.

REPORT ON THE KEW RELAY RACE—MAY 1977

By Dave COLEMAN—ex-Kew team (Kew Guild)

With only half an hour to go before the start of the Race, five of the ex-Kewite Team members had arrived. Unfortunately however, we were one man short; the man still to come was Robin Bletsoe, the youngest member of the Team. The last time I spoke to Robin he was considering getting married, or had just been married. However, the remainder of the Kew Team proceeded to get changed and unfortunately Robin Bletsoe has not yet been seen, either before, during or after the Race (definitely women problems!).

Kew Guild, therefore, only had five members in their Team; not to be outdone they consulted the Race Referee and the rules of the Kew Race to be informed that it would be possible for one of the ex-Kewites to do two laps. This unenviable task fell to Dave Morgan, youngest and fittest of the Team. He had to run two successive laps (i.e. lap 3 and 4).

The format route of the race having changed somewhat over the years, the start is now at the gate of the Lower Nursery on to the Tow Path to Chertsey Bridge, down Chertsey Road to the new swimming pool on the Chertsey Road just before the Richmond

roundabout and the runner touches his team-mate who turns about and does the same leg in return back to Lower Nursery Gate.

Lap 1 on this scorching, muggy Saturday afternoon saw Andy Keevil coming in for the Kew Guild a plucky 5th in a time of 16 minutes 24 seconds. Great run, considering Andy is now 34 years of age.

Leg 2 on the return saw Jeff Spate (1964) set off back down the Tow Path. Jeff, from Derby, aged 36 years of age, must have run now in at least twelve Kew and Kew Guild races, and his time of 16 minutes 40 seconds on the type of day on which the race was run was a remarkable effort when you consider he pulled one man back and Kew Guild were now in 4th position.

Leg 3—back up the Tow Path once again saw Dave Morgan run a terrific lap in 14 minutes 12 seconds, when you consider he had to do the same lap back down again, and his return time was slightly slower in the time of 17 minutes 42 seconds but he still held the Kew Guild team in 4th place.

Leg 5—back up the Tow Path saw the notorious, bare footed Cornish Wonder—Ben Pemberthy, running a new lap record for this leg in a time of 12 minutes 36 seconds. This was exactly 23 seconds faster than anyone else had achieved this leg on the same day. (Ben got married to Kim on Christmas Eve 1977—he'll be slower next year I bet)!

He pulled the Kew Guild team into 3rd position with the Kew Gardens Team now in 4th place; it was up to Dave Coleman on the last lap to see if he could hold Ex-Kewites in 3rd place to collect the Maori Batton. Sure enough, at the end of the 6th and final lap, Dave Coleman brought the ex-Kewite Team home in 3rd place, with Kew Gardens in 4th place, some 1 minute and 2 seconds behind.

The average age of this team was $33\frac{1}{2}$ years and between them they have run in over 60 Kew Relay races.

Hats off to Writtle, who held the lead from the start and finished in a time of 1 hour 28 minutes 12 seconds—well done Writtle!

In 2nd place was Askham Bryan, who had second place all the way to the finish.

Kew Gardens—our apologies to them from the Kew Guild for stealing their 3rd place on the second lap. Never mind, Kew Gardens, you can win next year; at least, you will have to beat the ex-Kewites to do it. Nevertheless, every success in 1978.

Other trophies won by the ex-Kewites were the Ian Manders memorial trophy to Ben Pemberthy for the fastest lap of the day between Kew Gardens and ex-Kewites. The Pring Cup also went to the ex-Kewites, being the winners between Kew Gardens and the ex-Kewites. The Challenge Cup, of course, went to Writtle, being the first team home. The Shield went to Askham Bryan, who also won the Rochford Trophy.

To sum up, the ex-Kewites are always looking for fresh, young blood to come into the ex-Kewite Team and I would ask any of the ex-Kew Garden runners who have left, or who will be leaving Kew in the near future to contact Dave Coleman at Glencroft, Lower Mains, Dollar, Clackmannanshire to put their name on the list of possibilities to run in the ex-Kewite Team in the future.

LIVING COLLECTIONS DIVISION REPORT 1977

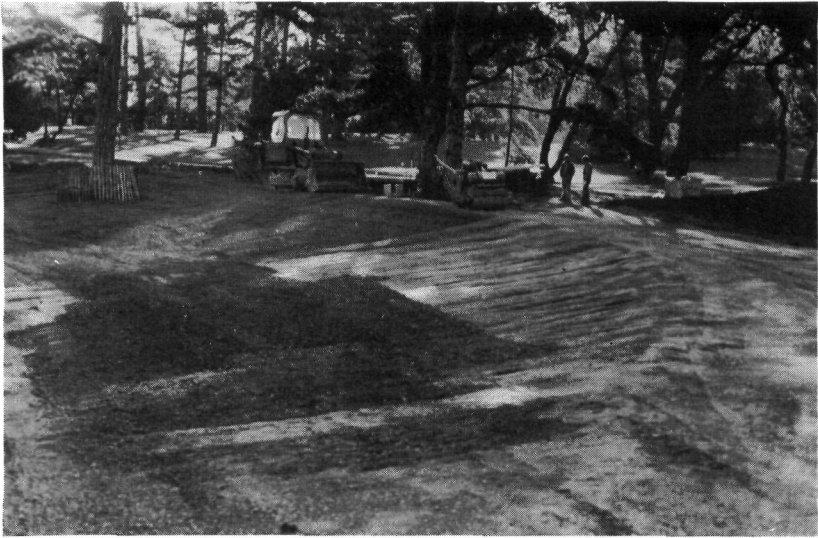
By IAN BEYER, Deputy Curator

Frantic telephone calls from the editor informed me that I must stop allocating pieces of paper to the wastepaper basket, out tray, or pending file, and try to gather my thoughts in an attempt to assess the work in the Living Collections Division during 1977. That is, if the telephone will stop ringing! Reading what was written last year one is forced to realise that so much happens during the working year that it is impossible to record in this short report all the significant changes which may slowly evolve as a result of minor decisions and only the old Kewites returning to Kew would appreciate their full significance. We like to think that we have moved with the times and no garden can afford to stand still, but also we realise the tremendous responsibility we have to preserve and increase the reputation of our *alma mater*.

Remembering the extreme heat of the summer of 1976 and the severe stress shown by gasping thirsty trees it was good to reflect that 1977 brought with it bountiful supplies of rain which returned the ground reservoirs to their usual capacity, but unfortunately it came too late to save some of the larger senile trees, mostly beech, which had to be felled. Looking back over the last two decades during which I have been associated with the Gardens, it is fair to reflect that every year has brought with it the need to despatch many old tree friends to the bonfire. Unfortunately it is inevitable that trees maturing at the same time will also die together and so planting policies must allow a steady replacement to take place without affecting the landscape. The emergence of Dutch elm disease and the hot summers tend to upset the balance and approximately 200 mature trees were removed during 1977.

Perhaps the most significant change old Kewites will find disconcerting was the transfer of the Curator's Office in January from Descanso House to the palatial carpeted emporium now known as Aiton House and situated in the Lower Nursery. An article elsewhere in this journal fully describes the function of the building complex but it is perhaps appropriate to describe how the naming of the building came about.

Various name permutations were considered but by chance, when trying to locate a suitable painting to grace the sparse new



Flood defences—South West corner of the lake.

walls, a portrait of William Aiton was discovered in the Museum. For some time Miss Angel had been anxious to find a suitable place to display the portrait of the first Head Gardener of Kew and was very pleased that a permanent resting place could be found for it. Anxious to take advantage of the offer two senior curatorial staff carried the portrait of the old gentleman up to the first floor landing and fixed him to the wall by a strong nail and a supporting wire. Obviously he must have taken exception to his new surroundings because next morning he broke his wire and fell heavily to the ground in disgust. First aid was immediately administered, particular attention being paid to his gilt frame using ample quantities of polyfilla. Luckily no serious injury was sustained and he was rehung by professional DOE staff. To placate his obvious disdain for his new home it was agreed that the building should be named Aiton House in his honour. He now seems to have accepted the fact that there is no going back and those entering the Curator's complex with some trepidation at least can be comforted by a glimmer of a smile from the benign old gentleman who I think now is looking on the world about him in a more understanding manner.

Each winter seems to bring with it the problems of clearing up mess left behind by builders engaged on the various projects that have been undertaken in recent years to update facilities required in the Gardens. Added to these during 1977, was a flood defence scheme that has been implemented by the Greater London Council

for the upper reaches of the Thames. The riverside along Ferry Lane as far as Brentford Gate has been protected by the sinking of steel piles faced with a brick wall to raise the flood defence by 2 feet. It was found that to protect the Gardens from this point to our boundary with the Old Deer Park, it was only necessary to raise the ground level at 3 points. The general ground contours offered good protection and by raising a small area inside the Gardens at Brentford Gate and in the vicinity of Isleworth Gate our boundaries should be secure from flooding and no longer would it be necessary to worry in the event of an exceptionally high tide. Only minor work was required to secure the defence at 2 points but the third proved a larger project altogether. At the south-western corner of the lake the ground contours have been changed dramatically. By creating a wall of aggregate surfaced with a 12 inch layer of top soil, a bank some 50 yards long has been formed to fit in and link surrounding high ground. Construction was undertaken by contractors during the late winter and early spring and due to the hard and efficient work of all concerned an acceptable grass cover was established by early summer. Needless to say the area looked like a battleground for a while and doubts were expressed by many that the area would ever look presentable again (see photograph). We feel that the sceptics have been proved wrong and in fact the views of the lake from a new vantage point have been improved.

Work on the renovation of the Temperate House which will take 3 years to complete started in earnest with the partial demolition of the north block (Himalayan end) and complete removal of the old wooden annexe. The engineers and contractors had many problems to solve as the exact stage of the main structure could not be established until it had been exposed. At the time of writing new aluminium glazing bars have been fitted and glazing should be completed by the end of February. Running concurrently the south block has been stripped and if the programme keeps to schedule should be completed by mid-summer. Early indications are that the architects and contractors will finally restore this unique building to its previous elegance whilst at the same time improve its practical function. To update the heating of this complex and ancillary service buildings in the Stable Yard, a new boiler house has been built and is being fitted out on the site of the old Mess Room in the Stable Yard. Heat will pass through a ducted main to the Temperate House releasing the Temperate House basements for other uses which are still under consideration but could contain areas for public display.

The interior of Queen Charlotte's Cottage has been refurbished by the Department of Ancient Monuments, DOE, with period furniture and fittings. A period thatched kiosk has been constructed near the front of the building and the DOE intend to reopen the building in the spring. We feel sure that visitors will enjoy a much improved feature of Kew.

Construction work on the new Alpine House in the Melon Yard which was delayed in the year is nearing completion and a start will be made on both the internal and external landscape soon, but it is unlikely that this will be completed before the spring of 1979. Long suffering garden staff will never be able to understand the complications and delays caused by builders but this is not unique to Kew—a fact that many readers will endorse.

Wakehurst Place, which perhaps is unfamiliar to many older Kewites, has also been deeply involved in many building and allied projects during the recent years, but happily most of the major schemes are now complete. However a new reservoir which has been constructed at Ardingly extends along the arm of the valley which runs up to the gardens near Westwood Lake. It has been possible with the help of the Water Authority to turn this to the gardens' advantage by creating a barrage between Westwood Lake and the reservoir so that a reed swamp can be developed. Westwood Lake is badly silted up and by dredging, the deposit can be put into the area, thus creating several acres which will be used to grow native wetland plants. The reservoir itself has started to fill but it will be some months before it is finally full. Further development of a nature trail around the perimeter of the Wakehurst estate will be undertaken as time permits. Kewites who have yet to visit this outpost of Kew are recommended to do so at their earliest convenience as its plant collections are unique, and the landscape breathtaking.

The major events of Jubilee Year are recorded elsewhere in this edition of the Journal but it did give the Gardens' staff incentive to tidy up neglected corners and apply the final polish to the various features of public importance. The usual influx of official visitors included some important personalities. Princess Margareta of Sweden and her husband Mr. J. Ambler, the Minister of Agriculture for Paraguay, Frau Schmidt, wife of the Federal German Chancellor and a party of 80 wives of EEC Ministers being the most noteworthy.

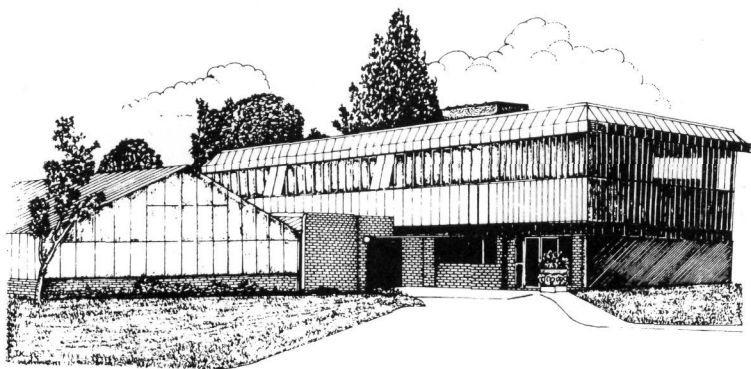
It is not my intention to bore Kewites with details of other less significant events but I do advise you, if you can, to come back occasionally and have a look at what is happening. There are bound to be still a few faces you can recognise and those you don't will only be too pleased to see you. Unfortunately each year it is sad to record the departure due to retirement and other reasons of colleagues. During 1977 we paid a very sad farewell to George Brown who left the Arboretum for a less exacting life in North Devon and our longest serving staff member Sidney Bonsey who retired after 53 years service at Kew. Familiar faces may have disappeared but all will be remembered for a long time for their valuable contributions to the Gardens. On a brighter note their successors have taken over and significant appointments include

Stewart Henchie as Assistant Curator, Services Section; Paul Potter, Supervisor, Tropical Section and David Owen, Supervisor, Arboretum Section. Senior Staff continue to travel abroad and despite the impression some may have, their journeying is not an excuse for a holiday in tropical climes. In fact all who participate would agree it is exactly the opposite. The Curator and Hans Fliegner spent a month plant collecting in northern Iran and gave advice to the Ariamehr Botanic Garden near Tehran. Stewart Henchie joined Alan Radcliffe-Smith plant collecting in the Yemen and Ruth Storr spent three months in Brazil with members of the Herbarium staff, also collecting plants. Charles Erskine undertook a month's study tour of major arboreta in the USA and Ian Beyer attended the second meeting of Optima in Florence, Italy.

The students' Diploma Course through which many Kewites have graduated continues to thrive and it is gratifying to record that numbers of applicants for a place continues to rise and during 1977 hit an all time high. Perhaps this is a good omen for the future and indicates that the institution to which all Kewites owe so much is in good health and is confident of staying in its premier position for many years to come.

AITON HOUSE

By D. W. H. TOWNSEND, Assistant Curator, Technical Section

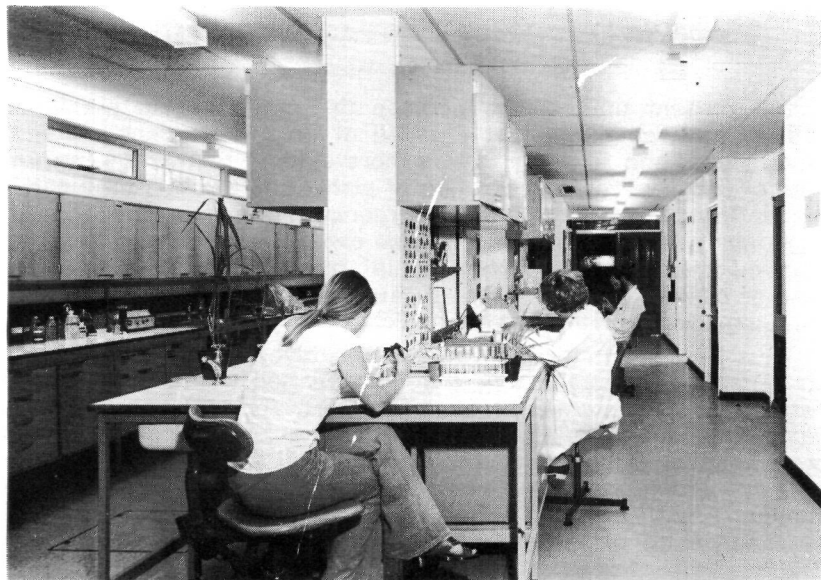


It was realised some time ago that Kew needed to make positive efforts to obtain the facilities which a modern botanic garden needs to fulfil its rôle fully in contemporary horticulture; and thus Aiton House was designed by consulting architects Messrs. Manning Clamp and Partners to a detailed brief provided by the Living Collections Division and built by the Public Services Agency of the Department of the Environment for this purpose.

The building, designed to blend with the glasshouses close to which it is situated in the Lower Nursery area, stands on the site of the old castellated palace of George III; and to acknowledge Kew's debt to its first Head Gardener, William Aiton, as well as to confirm the antiquity of Kew's place in the forefront of botanic gardens, it was named Aiton House.

William Aiton was born in Hamilton, Lanarkshire in 1731 and moved south in 1754 to work at Chelsea Physic Garden. An appointment to Kew by the Princess Dowager of Wales followed in 1759, and in 1789 he produced the '*Hortus Kewensis*'. He died on February 2nd 1793 at the age of 62 having been in post for 34 years and was succeeded by his son William Townsend Aiton (1766-1849). His portrait, supposedly (and probably not) by Zoffany, hangs at the top of the stairs in Aiton House, and in his hand is a specimen of *Aitonia capensis*.

This expresses his career in bare biographical terms; but the fact that comes more humanly and equally readily to mind is that his official residence at Kew was Descanso House, later to become the Curator's Office for more than 70 years, and that this building is still associated with the everyday horticultural life of Kew. Thus the association of his name with the most modern development at Kew is a particularly happy choice.



Aiton House—General Work Room in Micropropagation Unit.



Sir Charles Pereira performs the opening ceremony.

SEMINAR 'TECHNICAL ADVANCES IN MODERN BOTANIC GARDENS'

The present time shows perhaps the most intense period of activity and rethinking in the world of botanic gardens for very many years; and nowhere is this more evident than in the awareness of the need for conservation of plants and animals throughout the world as a matter of extreme urgency. Politics is a business of expediency, where external influence can only be wielded by mass demand or to a lesser extent by informed authority; and in the case of conservation the botanic garden can only do this by firmly applying the latter, hoping to provoke the former.

Thus it was felt that to back up the involvement of Kew with conservation (highlighted by the Conservation Conference held at Kew in 1975 and by that planned for 1978) and with contemporary techniques, the opening of Aiton House should be accompanied by a seminar on the subject of 'Technical advances in modern botanic gardens', which would be held in the Jodrell Laboratory Lecture Theatre. Every paper tabled confirmed the relevance of the application of the techniques and topics itemised under the four headings of conservation, introduction, distribution and education. All are completely interrelated, and could well be the motto of the Micropropagation Unit contained within Aiton House.

Kew was honoured that MAFF's Chief Scientist, Sir Charles Pereira, performed the opening ceremony and unveiled the commemorative plaque on Aiton House; and in his address he commented on the uniqueness of the Royal Botanic Gardens Kew where 'an advanced scientific laboratory sited amongst the world's largest living collection and operated by green fingered botanists and horticulturalists who also ran a very successful training school in scientific horticulture was surprisingly combined with a Royal Park to which more than a million people repaired annually'.

It was gratifying to find that the seminar attracted so many distinguished representatives of scientific and educational establishments, botanic gardens, and commercial organisations; and Kew is particularly grateful to those who presented papers which were so explanatory and thought provoking and which despite the limited time available highlighted these 'tools and topics of the future'.

POLICIES OF MICROPROPAGATION UNIT, PROGRESS AND POTENTIAL

By D. W. H. TOWNSEND

The justification for building a 'micropropagation unit' stems from the very earliest days of Kew, when despite the constant stream of often haphazard plant accessions the total taxa in cultivation rose only marginally since (a) the condition on arrival was poor (due to insufficient knowledge, poor storage and poor transport) and (b) appreciation of plant needs by the propagator was often lacking since field notes were usually unavailable.

Thus plants and seeds were usually given one 'standard' treatment, dependant on an alpine, temperate or tropical origin; so that plants which grew were often universally tolerant and formed the basis of the 'botanic gardens flora'. Under such circumstances, many rare or even unique plants failed to grow.

Nowadays, collectors in the field collect only against specific requests from botanists or horticulturalists; and improved storage techniques and transport allied to meticulous field notes means that the majority of plants on arrival at Kew have the potential for growth.

Yet, before the inception of the Micropropagation Unit, propagation facilities at Kew were no more than a sophistication of methods used for a century or more, and whilst plant needs were becoming understood, it was recognised that the wherewithal was lacking to cater for material which was often unique, and consequently in demand throughout the world.

The four words - conservation, introduction, distribution and the natural corollary of education have become increasingly important, and modern technology is an integral part of this. Back-

ground data is essential, and this is increasingly available (a) from the field by field notes and soil analyses, (b) from the literature search of publications covering both practical horticulture and laboratory culture (*in vitro*), and (c) data being amassed by the Plant Physiology section at Wakehurst Place (a section of the Jodrell Laboratory at Kew) concerning seed storage and germination.

Thus we have within the new Unit incubators to control light and temperature for seeds and cultures; and growth shelves with similar but marginally less precise controls for work on a larger scale (based on an idea from the John Innes Institute), allied to a glasshouse block containing five separate environments to use both as weaning units and for growing stock plants. Initial growth always takes place *in vitro*, and by using conventional laboratory techniques, backed up by meticulous recording and a rapidly expanding data bank, conventional methods of plant propagation can be expanded and the prospects of success increased.

The Unit does not undertake original research, although developmental research is to some extent inevitable; it is a service unit for other sections of the Gardens, applying improved propagation techniques to plants which are either rare, difficult to propagate by conventional techniques, or newly introduced. The small number of staff precludes extending our work to explore problems in depth with which we are confronted, such as the importance of symbiotic mycorrhizal association to orchids and other plants. We are inevitably presented with a wide range of problems, which come under seven headings:—

- (a) Seed germination and vegetative propagation of plants which are either rare, of conservation importance, or which pose particular problems of propagation.
- (b) Virus cleaning of plants of importance to research or to the Gardens.
- (c) Distribution of surplus propagules *in vitro* on request.
- (d) Maintaining healthy stock plants where necessary for further propagation.
- (e) Investigation of the vegetative propagation problems of a group of plants of particular conservation importance, e.g. cycads.
- (f) Investigation into the propagation of plants of importance to the Quarantine Unit e.g. *Theobroma cacao* and *Saccharum officinale*.
- (g) Occasional externally originating problems of conservation importance, e.g. the propagation of *Paeonia mascula* from Steep Holm Island.
- (h) The building up of a relevant data bank and the building up of contacts with other workers in this field.

GEORGE BROWN RETIRES

The photograph shows the Director, Professor Brennan, presenting George Brown with a token of his colleagues' appreciation, on 16th February 1977. This was a specially commissioned and framed picture by Margaret Stones of *Chimomanthus praecox*. The following day all the Curatorial staff gave a dinner in Descanso House in Mr. Brown's honour, at which further presentations were made. It was recalled that he first came to Kew as an ex-service trainee in 1946 on a one year course, and, following eight years as lecturer at the Kent Horticultural Institute at Swanley, he returned to Kew as Assistant Curator in charge of the Arboretum; a position which he retained until his retirement. (See further details Kew Guild Journal 'Events of 1974' p. 295). We wish him a long and happy retirement in North Devon.



George Brown, left, receiving his picture.

IN STATUO QUO

By E. W. MACDONALD

It is night. A supine moon is scantily clad by mischievous clouds. Beneath it the Royal Botanic Gardens lie, peacefully sleeping; the sinister jungle of No. 1, with its drips sporadic, and its stealthy rustle of pillar embracing foliage; the romantic verdure of No. 2 and 3, circinnately unfolding with Mozartian grace, and

the polychromatic pretties of No. 4. Nearby, gleaming in the moonlight, lies No. 5 House, its arboreal Cacti and Euphorbias "like petrified giants, stretching out their arms in speechless pain".

Across the way, the Cacti in the Sherman Hoyt house reach forth vainly their spiny arms in silent supplication for their native sun-kissed lands, whilst the nearby Lithops, cheated out of their South African Spring, cuddle together more closely as they contemplate the coming English winter. Deep in the depths of the T-Range, the Nepenthes whisper together, recalling obscene carnal orgies, while orchids vie with each other in planning further creations in "Haute couture."

Further afield, the majestic Palm House, like the capsized hull of some great ocean liner, rears skywards its stupendous mass, a rhapsody in glass and iron, epitome of Victorian pomp and circumstance.

The staid chimes of the Byzantine-Graeco-Roman-Georgian edifice of St. Anne's ring out across the Green, reminding humanity that it is precisely 10.30 p.m. of the clock. Barely have the echoes died away, when several stealthy figures make their way with gait unsteady to the more than steady gates of the Royal Botanic Gardens. Who are they? Whence have they come? What is their purpose and whither their destination?

By devious methods the solid gates succumb to the invaders who, with elusive zeal, approach unseen the scene of the "crime"—the Iris Garden.

Foursquare in its midst a pedestal stands and upon this pedestal stands a statue, conceived and executed in taste most inexorable, portraying a miner? But no. A garden boy, leaning on a spade in a manner most oafish. No spark of intelligence enlightens its moronic features, neither is there any self-respect in its mien and attire. *Erasez l'infame!*

The stealthy figures move nearer, their motive becoming apparent. That which they hate they may not destroy, yet by ridicule their object they may achieve, so, with care and dexterity the detested object is made to perform a "volte face", its visage from south to north appearing.

Their solemn mission achieved, the conspirators creep slowly away into the night. But stay! Gleaming in the moonlight appear the insignia of the R.B.G. Constabulary! All is discovered. There is a wild stampede, but alas, one is caught!

Thereupon the iron machinery of the law is in motion set; bells ring, uniforms appear, a car arrives followed by a Black Maria, portentous in its gravity. Their friend's plight apparent becoming and his rescue essential, they seek volunteers for the cause; the banner "Esprit de corps" is raised aloft and into the jaws of the law they march, their unfortunate friend's cause to espouse.

Many words are said, many names are written—a students "Rag" is the plea. "An internal matter only; nothing to do with us," is the verdict, and with grinning faces the police depart. But the R.B.G. Constabulary are of sterner stuff made. Overlook it? No! Authority is roused from the arms of Morpheus and the farce is again explained.

Came the dawn, and with it the sword of justice. The carpet is unrolled, the solemn words are pronounced, and the suspensions duly performed.

With plumb-bob, level and square, the statue is turned back to its normal position, to resume its doleful grimace at the rock garden.

EPITAPH

Their cause was right—they struck in defence of good taste and the aesthetics of landscape gardening. Down the years to come, future Kewites, on learning of **their** exploits, here recorded so unworthily will, when passing through the Iris Garden, murmur—"Theirs the daring, the adventure, the martyrdom and the glory—Floreat Kew!"

(If memory serves your editor right the above exercise was performed in 1963. The statue of the student gardener now reposes west of the order beds near the Temple of Aeolus. It is of interest that a previous curator would not accept this article for publication. "Mac" now retired, lives in Kew.)

To be lifted from one's natural home,
 At Supersonic pace,
 To enter misty emptiness and drop from outer space.
 To some unknown icy peak
 Where comforts are not to seek.
 To dream one night of being trapped amidst glowing teeth and
 tangled tree.
 And wake and hope to be at ease,
 These—are just romantic fallacies.
 Such fallacies I was liken to,
 Upon my first entering Kew,
 But quickly as the hours flew,
 I found this being far from true.
 So, if reality you need,
 Come to Kew and sow your seed,
 To reap a harvest unique and unsurpassed,
 A harvest of knowledge and confidence to last.

submitted by P. A. CATCHPOLE (1958).

A DESERT EXPEDITION IN WESTERN AUSTRALIA

By ALEX GEORGE, Western Australian Herbarium

In August 1977 I had the opportunity to visit the McLarty Hills, in the north western Great Sandy Desert of Western Australia. An oil exploration team visited the Hills in 1954 and a mapping team in 1966, but no road goes there, and no previous botanical collection had been made in the region. The thrill of being the first to botanise in an area is still quite frequent in this State of 2.5 million square kilometres but for me this trip had the added excitement of being to the desert. In previous expeditions I had explored parts of the Great Victoria and Gibson Deserts, and the southern Great Sandy, but this one would fill in another gap. And the remoteness, vast space and colours of our deserts have their own fascination.

The expedition, albeit brief, was arranged by Mr. Norm McKenzie of the Wildlife Research Centre of the Department of Fisheries and Wildlife. A mutual friend leading a geological mapping survey of the region organised his schedule to allow us several hours of helicopter time which would enable us to reach the Hills otherwise accessible only with difficulty. We had to make our own way to and from the geologists' base camp.

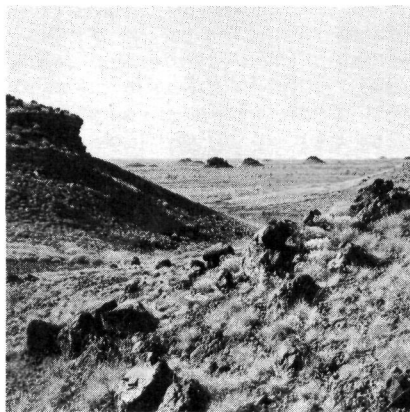
Norm and I left Perth at 6 a.m. on 4 August on a Fokker F28 jet of MacRobertson Miller Airlines (MMA, locally known as Mickey Mouse Airlines). Dawn came during the 2½ hour flight via Newman, a new iron ore town, to Port Hedland on the north west coast. Here we met a Landrover which had driven the 1900 km from Perth with our collecting equipment, camping gear, food and water. We continued immediately on a 420 km drive over dusty natural earth road, sometimes smooth, sometimes corrugated or washed out, which brought us to the base camp after dark. The geologists provided us with a welcome dinner, and the exciting information that our flight to the McLarty Hills would take us over a permanent, fresh-water soak which might be interesting! Any water in a desert is well worth investigating, and we arranged to spend time at the soak after examining the Hills.

The first night of a camping trip is often unsettled, especially when one has been whisked in a day from city comfort to desert starkness, but the drive must have wearied us, for we slept soundly on air mattresses under a clear sky of a myriad stars. Up with the sun next morning, we sorted the gear to be taken, reduced to a minimum as it was limited by the load which could be lifted by the helicopter—and it had to include our water for seven days. Within an hour the pilot, nicknamed Biggles, was winding up the Bell Jetranger and we were off over the vastness of the desert. Plains of red sand broken by a few rocky hills gave way to parallel dunes stretching east-west from horizon to horizon. Extensive

burns of various ages left their patterns below and we hoped that no recent ones had affected the Hills. About 45 minutes out we swooped low over the soak and made a quick assessment of its potential. Fifteen minutes later we were circling the Hills both for an initial reconnaissance and to select a campsite. There was little choice for the latter, for only one creek-line supported trees, and shade is appreciated in the desert, even in winter! We had soon landed and unloaded, and the departure of the helicopter left us to the solitude and silence, over 200 km from the nearest permanent habitation. Our trees (we found a group of three!) proved to be Ghost Gums (*Eucalyptus papuana*) with pure white smooth trunks.

An initial look around showed us three landforms each with variations. Our creek bed crossed an alluvial plain, bounded to north and south by sand dunes about 4-5m high. The Hills lay to the north, east and south, mesa-like rocky piles up to 50m high. Features of immediate interest were, for me, prominent flowering shrubs on the hills and for Norm, low caves which might shelter bats and other animals.

For the next four days we explored the area, first the Hills, then the plain and dunes. A persistent south easterly wind kept conditions mild in clear, sunny weather, around 10°C at night but never above 30° in the warmest part of the day—about average for this part of Western Australia (19°30'S) in August. The wind made pressing and changing papers awkward, but provided good drying conditions. Conditions were dry, yet many plants were in flower or fruit, the response to rain earlier in the year: summer is the normal season for rain in the northern desert. No recording stations exist there, but I would estimate the average rainfall at around 200-250mm, though it is erratic.



A view in the McLarty Hills, Great Sandy Desert, Western Australia. The plants are mostly *Spinifex* (*Triodia* sp.) with a few *Ptilotus* and dead herbs.

Both unburnt and burnt areas occurred around the Hills, and the latter soon proved far better collecting ground, the burns being several years old. The response of desert plants to fire is like that in the South West of the State. Some species regenerate from seed, while others sprout from rhizomes, woody underground stocks or suckers. Fire-opportunists grow and flower quickly, then, as the longer-lived species grow up, die out and remain dormant as seed to await the next fire. Flowering of many species is enhanced for a few years by fire.

The Hills themselves, covered with sandstone boulders, carried a sparse vegetation, the shrubs being mostly *Grevillea* (Proteaceae) of which there were three species in flower. Most hills had one to three plants of native fig (*Ficus platypoda*) which, being in fruit, were haunted by birds. An open ground layer included the pungently-leaved spinifex (*Triodia*, Poaceae) which is one of the plants characteristic of the Australian desert. A few herbs chiefly of the Amaranthaceae, Goodeniaceae, Cyperaceae, Boraginaceae and Tiliaceae completed the vegetation.

On the surrounding lower gravelly slopes, a steppe of rather dense spiniflex predominated with scattered shrubs of *Acacia* (Mimosaceae), *Hakea* and *Grevillea* (Proteaceae). Only along dry creek beds did the tall *Acacia* form a denser shrubland with a dense ground cover of grasses such as *Sorghum*, *Plectrachne* and *Aristida*. The occasional *Gardenia* (Rubiaceae) was a reminder of a few links with the wetter Kimberley region to the north. Dried herbs such as *Drosera* showed that a visit just after rain would add to the flora I was able to collect.

The sand dunes, which I left to last, supported the richest and most interesting floristic assemblage. Like most central Australian soil, the sand was red, and drifted slightly in the wind, but the vegetation was sufficient to stabilise the dunes. Here I found old friends, the white-wooly *Newcastelia spodiotricha* (Dicrasyllidae), the green Bird Flower *Crotalaria cunninghamii* (Fabaceae), the intensely purple *Cyanostegia cyanocalyx* (Verbenaceae) and *Grevillea eriostachya* with dense racemes of orange flowers laden with nectar. Exciting finds were a new species of *Comesperma* (Polygalaceae) and a possible new *Psoralea* (Fabaceae), neither previously collected. Though appearing somewhat uniform in vegetation, the desert dunes can spring surprises and are worth following for some distance in the hope of making such finds. After some searching I located a large population of another undescribed species collected far to the south east on a previous trip—a magnificent *Templetonia* (Fabaceae) with large grey-felted leaves and bell-like flowers of a delicate red-pink. An occasional Desert Walnut, *Owenia reticulata* (Meliaceae), with massive, fissured trunk spread its Arthur Rackham-like crown and provided some shade on the dunes.

By the end of the fourth day my collections totalled over 100 species and additions had become infrequent, and it was clear that I had recorded most of the determinable flora. On such expeditions we try to collect everything, if only in leaf, as it may be many years before the next visit. In this case collecting for the herbaceous flora after rain would add significantly to the list. But I was well satisfied, for a good picture had been built up, my collections were safely drying, and another blank on the floristic chart of the State had been largely filled.

Over our morning radio schedules with the base camp (necessary for safety in remote areas) we had arranged the move to the soak, and on the afternoon of 9 August the helicopter appeared and moved us there. My first surprise was the identity of the trees of the soak—*Sesbania formosa* (Fabaceae) instead of the paper-barks (*Melaleuca*, Myrtaceae) usually found in wet or damp situations in both the north and south of the State. The beautiful, huge pea flowers—9 cm long—emitted a strong, sweet scent. Bullrushes (*Typha*) and a grass (*Paspalum*) formed the understorey but in the centre of the soak (which covered about 0.5 ha) there were no trees but a dense, pure stand of *Baumea articulata* (Cyperaceae). This was an occurrence of some phytogeographic interest, as the species otherwise known only from South Western and eastern Australia. It may have arrived at this spot as seed on the feet of birds. With little open water the soak contained no aquatics, and an occasional plant of another sedge completed its flora. Norm, however, was delighted with the birds and spent many hours observing and recording. We spent the evenings attempting to catch bats, with limited success. An interesting phenomenon seen each night was the afterglow which persisted in the west long after the normal twilight had faded. In the haze and artificial light of a city one rarely sees it.

While the weather continued fine, we were surprised on two mornings to wake up to fog drifting from the west. This is a common occurrence on the north west coast in winter, but we had not known that it could extend so far inland. The whole vegetation became wet and would obviously have benefited from this. On both days the fog lifted and dissipated by 8.30, leaving the typical clear, sunny weather.

We camped here under an *Owenia*, of which there were some extensive stands in the area, on dunes and in swales. Interspersed with the sandy tracts were wide, saline loamy flats, a habitat quite different from the McLarty Hills. Succulents such as *Arthrocnemum* (Chenopodiaceae) and *Trianthema* (Aizoaceae) predominated, a species of the former genus later proving to be an unnamed one not previously collected. The red stems and foliage of these plants were especially attractive when backlit by the late afternoon sun. A number of small herbaceous species added interest to the

flats, which were made more striking scenically with numerous grey termite mounds up to 3m tall and 2m wide. Shrubby *Melaleuca* and *Acacia* formed thickets here.

The sand dunes, which again had mostly been burnt, had a similar but poorer flora to that of the dunes by the McLarty Hills, but *Owenia* was frequent, and different species included *Dolichandrone* (Bignoniaceae), another relic of the wetter Kimberleys, and a new shrubby species of *Heliotropium* (Boraginaceae). The sand was covered with animal tracks—reptiles, kangaroos, small marsupials, birds and dingoes. We saw several of the last, and heard them howling at night, but they showed little fear of us, though wary. Over eighty plant species were recorded at the second site, half of them different from those at the Hills.

On the afternoon of Friday 12th "Biggles" duly arrived and transported us safely to base camp where we learned of the impending disaster to Australia in the Fourth Test at Leeds. However a well-cooked meal and a clean-up in a "bush shower" restored us somewhat, and the Land Rover was packed for departure the following morning.

A heavy dew delayed us briefly on the Saturday while sleeping bags were dried out, but we were soon away and had a last look at the desert as we travelled towards the coast. At one stage a large animal ahead turned out to be a camel, a wild descendant of those brought to Australia last century for transport in the dry outback. Though not numerous, they are now widespread and their tracks are often seen.

By mid-afternoon we were at Cape Keraudren, a rugged, sandstone headland at the southern end of the 80 Mile Beach. Norm was after a new species of bat which he believed to occur in the mangroves just south of the Cape, and we selected a camp site on the open salt flat at the landward edge of an extensive mangal. I was intrigued to find a mistletoe, *Amyema thalassium*, on *Avicennia marina* (Verbenaceae), the dominant mangrove here. The mistletoe had bright green orbicular, succulent leaves with a salty taste similar to that of a samphire. A four-hour vigil with mist-nets in the mangal was rewarded with only one of the required bats, but that was enough to please Norm who had previously collected it north of the 80 Mile Beach.

Early afternoon on Sunday 14th saw us back in Port Hedland, a rather raw re-introduction to civilisation. The town has recently grown markedly as an outlet for iron ore from new mines in the region and is an untidy sprawl among mangrove-fringed salt flats and low sandy plains.

The collections were packed during the afternoon, the MMA jet duly arrived on its daily return run from the far north, and by 8.30 p.m. we were back in the cool, damp air of a winter's evening in Perth.

LETTER TO THE EDITOR

Dear Sir,

Professor R. E. Holttum has sent me a xerox copy of his article on 'John Smith's *Historia Filicum*' which appeared in the Journal of the Kew Guild, Vol. IX (1975), and in which he cudgels me for 'the very unfair treatment' he says I gave John Smith in my book *The Hookers of Kew* (1967).

I hope you can afford me space to quote my reply.

Regretting that Professor Holttum in his accompanying letter accused me of not doing justice to John Smith, I have asked him to look at the references categorically. They are these: on pages 95 and 105-6 I credited him as being very much the custodian and watchdog of Kew's best interests; on page 109 as upholding Richard Turner as architect of the Great Stove and as rightfully criticising the underground flue and furnace system; on page 156 as contributing interesting exhibits to the Museum; on page 207 recording his 'forty years of loyal service, having kept Kew going, through all its early vicissitudes, before it became a national garden.'

Is this really 'very unfair treatment'?

True, I admitted to calling John Smith 'gloomy' when he was dealing with the flue and furnace problem, but I should think anybody in the circumstances, which grew worse and worse, would have been reduced to a state of gloom, and his notes certainly read that way. And if Sir William Hooker had to rebuke him for his attitude to the workmen, his comments were listened to and taken up by the Director.

As to his ferns, certainly I did not discuss these. I was not comparing Hooker's collection with anyone else's, nor even discussing Hooker's work on ferns in much detail, except to say that his *Genera Filicum* remains a classic because of the beauty of Fitch's coloured plates. His *Species Filicum* is listed at £180 in the current catalogue of a well known second-hand dealer.

I would like to add that despite Professor Holttum's displeasure he was kind enough to say that he had enjoyed my book and learned from it, though he has been in close touch with Kew for 55 years, and this I acknowledge with very much appreciation.

Yours sincerely,

MEA ALLAN

Editor's Note:—

Members should note that this letter was received four months after the publication of the "Events of 1975" Journal (which was 11 months late!) and three months after the "Events of 1976" Journal, and is therefore topical.

INCOME AND EXPENDITURE ACCOUNT

1975 £	DEBIT	1976 £
	To:	
	Kew Guild Journal	
	Envelopes	29.43
836.48½	Less Sale of Journals	5.73
		<hr/>
42.00	Prizes Awarded by the Guild	41.99
	Annual General Meeting:	
9.12½	Printing, Postage, Envelopes	60.28
15.37½	Hon. Officers' Expenses	24.67½
25.00	Benevolent Payments & Wreaths	27.00
	General Printing, Postage & Stationery	9.00
6.50	Typing & Clerical Expenses	10.00
2.50	Insurance	—
60.18	Guild Emblems	—
	Guild Dinner:	
	Cost of Dinner, Gratuities etc.	544.43
	Less Ticket Sales (117 @ £4)	468.00
		<hr/>
(58.58½)	(Surplus) Deficit	76.43
13.50	Award Scheme Printing	76.30
		<hr/>
		349.37½
		75.44
		<hr/>
	Expenditure Not Included Above	424.8½
	Excess Income over Expenditure	2,021.97½
		<hr/>
		2,446.79½

BALANCE SHEET FOR THE

1975 £	LIABILITIES	1976 £
	Capital Fund:	
	As per attached Statement of Assets	7,762.97
	Current Liabilities:	
	Life Subscriptions:	
	55 @ £1.00 Half Rate	27.50
	70 @ £2.00 Half Rate	70.00
	70 @ £3.15 Half Rate	110.25
	5 @ £5.25	26.25
243.40	15 No record	—
		<hr/>
		234.00
		<hr/>
5,947.99½		7,996.97

FOR THE YEAR ENDED 31st DECEMBER, 1976

1976

1975	CREDIT			1976
£	By:		£	£
	Annual Subscription & Arrears	567.14	
	Donations	84.74	
1,068.95	Award Scheme Donations	419.65	1,071.53
	Dividends:			
266.74	From Charities Official Investment Fund			295.57
	Interest from Barclays Bank:			
102.94	General Deposit Account	131.79	
	Kew Guild Award Scheme			
12.31	Deposit Account	66.50	198.29
	Kew Guild A.G.M. Receipts			
4.90	from Sale of Tickets		—
	Wakehurst Booklet Receipts			
695.28	from Sale of Booklet		622.40
	Award Scheme Draw:			
19.76	Receipts from Sale of Tickets (262 @ £1)		262.00
20.81	Sale of Emblems		—
30.60½	Income omitted from Previous Year's Accounts		—
				<u>2,446.79</u>
	Balance as at 1/1/75	5,731.59½	
	Reduction of Life Subscription Liabilities		9.40	
	Add Excess Income over Expenditure	2,021.97½	
			<u>7,762.97</u>	

YEAR ENDED 31st DECEMBER, 1976

1975	ASSETS			1976
£			£	£
	Invested Assets:			
3,650.00	Charities Official Investment Fund Shares at Cost 3638.92 quoted @ £1.0306			
	20.12.76		3650.00
	Current Assets:			
77.32	Journal Nominal Value of stock	77.32	
67.37½	Guild Emblems (Purchase Value)	67.37½	
542.37	Wakehurst Booklet Stock (Purchase Value)	243.21	387.90½
	Cash at Barclays Bank:			
1,123.96	On Deposit Account	2,114.75	
377.07	On Award Scheme Deposit Account	1,289.22	
124.45	In Current Account	546.88	3,950.85
12.45	Cash in Hand		8.21½
<u>5,974.99½</u>				<u>7,996.97</u>

We have examined the above Balance Sheet and annexed Income and Expenditure Account. In our opinion and according to the explanations given us, these accounts give a true indication of the state of the Guild affairs as at 31st December 1976, and of the surplus for the year ended on that date.

Signed: R. R. HUNT) Hon. Auditors
R. I. BEYER)

DON WELLS MEMORIAL

Kewites will have read of the death of Don Wells in the 1976 Journal and it was thought that those who knew Don would like to know that the Arboricultural Association has launched a Memorial Fund. Depending on the sum raised it is hoped to institute some kind of annual award. Contributions should be sent to the Arboricultural Association:— R. T. Hillier, Treasurer, c/o Hilliers Nursery, Ltd., Romsey Road, Winchester, Hants.

* * *

GUILD MEMBERSHIP

The Membership Treasurer regrets that receipts will not be sent for cash/cheques received for membership payments unless requested.

* * *

BOOK REVIEWS

Tree Surgery. A complete Guide. By P. H. Bridgeman.

The second impression (1977) has been received for review. Published by David and Charles at £5.50 this book is of interest to both professionals and private individuals. There are thirteen main chapters dealing with all aspects of tree work except for the control of pests and diseases. These include information on tree growth by P. J. Jordan; Tree Surgery and the Law by D. Patch; Safety; Equipment; Materials and Chemicals; Felling; Surveys; and trees on development sites. The appendix gives useful information on Arboricultural Education and Training.

Although the print appears rather light and small, this book, with its good and useful illustrations and photographs, is a welcome addition to the office library.

RICHARD C. WARD.

* * *

KEW TENNIS CLUB

Membership of the Tennis Club is open to all members of staff of R.B.G. Kew, past and present, and their families. The annual subscription is £1.50. Anyone interested in joining should contact Mr. S. A. Renvoize in the Herbarium, R.B.G. Kew.

The new season opens on May 20th.

Last year several tournaments were played. The Proudlock Cup was once again won by Dick Brummitt; the Ladies Cup was won by Pat Richardson and the mens doubles was won by Vic Parry and Ken Richardson. The Dempsey Cup was won this year by "The Charlie Butler" Public House team, Mortlake.

(Remember the Dempsey's, former landlords of the "Coach and Horses", Kew Green and now at the Charlie Butler?—Ed.)

THE CELL PHYSIOLOGY LABORATORY

By Dr. MARGARET STANT.

The Cell Physiology Laboratory at 47a Kew Green was initiated and equipped by our previous Director, Professor Heslop-Harrison in premises which once formed part of the Director's official residence. The three-storey servants' wing to the east of this house had been longitudinally separated at an earlier date and subjected to a variety of uses, including, at one stage, a conference chamber. However, fortunately for us, and, I think, for Kew too, the Heslop-Harrisons, wishing to pursue their researches conveniently and whenever time permitted, converted the rooms on their doorstep into a series of up-to-date laboratories, collectively known as the Cell Physiology Laboratory.

On their departure from Kew, this building came under the control of the Jodrell Laboratory, and after slight hesitation, was colonised by Dr Owens and Dr Stant, enthusiastically assisted by students and visiting research workers. With the help of the D.O.E. ably organised by Mrs Hazel Hyde and her assistants the accommodation is now most comfortable, and, budget permitting, we continually strive to improve on the lavish equipment inherited.

The accommodation is situated on four floors, including a basement, and consists of three offices, two main laboratories, an ultra-microtomy room, an embedding room, an optical microscopy room, and on the ground floor, there is a transmission electron microscope. There is also a dark-room for photographic processing.

The general laboratory on the first floor is equipped with rotary microtomes for serial sectioning fixed and wax-embedded plant material and there is a cryostat for freeze-sectioning fresh material for cyto-chemical tests such as enzyme staining. Facilities have also been developed for detecting protein banding by mini-gel electrophoresis. In the basement, thin sections for electron microscopy are prepared on an ultra-microtome and there is a machine for making glass knives, although diamond knives are available for more advanced operators.

Most of the techniques are being used to study the fine structure of cells and to correlate this, where possible, with the biochemical processes of the cell and its constituents. Basically, we are attempting to tie-up cell structure and function. For instance, some understanding of the rôle of various organelles can be obtained by locating the sites and sequences of certain biochemical activities.

Much of the work so far has concentrated on pollen grains, stigma and style. In compatibility tests, observations have been made on the emergence and growth of the pollen tube by means

of fluorescence and ultra-violet microscopy. Studies on the micro-structure of dormant and germinating seeds and earlier developmental stages in their ontogeny will link up with this theme.

This is an exciting and useful field of botanical research and one in which we are indeed fortunate to participate and hopefully make some modest contribution.

* * *

RETIREMENT OF SID BONSEY



Sid started work at Kew in April 1924 working in the Arboretum, more than half of his fifty three years at Kew were spent as a carter. His great affection for the horses under his care was clearly seen in the way that he talked to them all day. When the tractors replaced the horses in the late fifties Sid remained and carried out horticultural work in the southern part of the Arboretum. He was always willing to tackle any job, and was even seen using a rotary mower. Mechan-

isation had finally caught up with him.

In 1971 he transferred to the Temperate Section. Although he was based at the Temperate House he carried out work for the other units. The smooth running of such things as pot washing in the Nursery, edging the Temperate House Terrace and delivery of the morning mail were all due to his quiet efficiency.

In June it was a thrill to read that he had been awarded the Queen's Silver Jubilee medal, indeed a fitting recognition of fifty three years of loyal service to Kew. At the beginning of August the news was not so pleasant as he was informed that he would have to retire by the end of October.

His colleagues held a collection and in the company of a few friends he was presented with a gold watch by Mr. Erskine—see photograph. He has adjusted very well to his new life, calling into the Temperate House to get the latest gossip and is frequently seen in Richmond making good use of his bus pass.

I am sure that all Kewites will join with me in wishing Sid health and happiness in his well reserved retirement.

C. M. ERSKINE.

THE ROYAL BOTANIC GARDENS CONSTABULARY

By Police Sergeant FREDERICK ALBERT BALL



The most inconspicuous part of the Gardens is, I am sure, the Constabulary. But it has always existed, right from the start of the Gardens.

Initially the Metropolitan Police had four or five officers patrolling the grounds of what were then known as the Royal Forcing Gardens. At the end of the Boer War ex-soldiers were enlisted, to act as gardeners starting at 6 a.m. each day and as Constables from 1.00 p.m. until 4 p.m. These men were eventually issued with uniforms and the Metropolitan Police were dispensed with. At this time William Aiton was 'Head Gardener' and was in charge of the policing, both of the pleasure ground

area at the Richmond end and the Botanics at the Kew end. As new greenhouses and museums were built so it was necessary to recruit more men.

Thwistleton Dwyer, later knighted—became Director of the Gardens, and Inspector of the Royal Gardens Constabulary. He wore a uniform and carried a baton, or staff, as Badge of Office. He was said to have been very strict but kept the men on their toes, smart and alert. And so the force became a regular force. Some men were employed as gatekeepers, some Museum Constables and some Patrolmen. Opposite numbers in the Royal Parks resented being called Park Keepers whilst Kew men were described as constables. Now all are called Police Constables, sworn in by a local Justice of the Peace.

The present Director is no longer the 'Inspector', but Mr. S. Brookes (Principal), is the 'Honorary Inspector', and I am Sergeant Constable controlling five Corporals and 34 Constables. We endeavour to carry out the same good and thorough job as our forebears did. Only more quickly?

THE PLANNING UNIT

By ANNE CHABERT, Supervisor

In 1970 a new unit within the Technical Services Department was established under the supervision of Mike Dawes, (past journal editor and now at Hammersmith Parks Dept.) to co-ordinate centrally all aspects of planning which in part, had previously been undertaken by the individual Gardens' Sections. The Unit also had the rôle of developing the educational aspects of the living collections.

Today, the Planning Unit (as it has now emerged) is located on the top floor of Aiton House, the main involvement of the Unit is still co-ordination, planning and education.

The planning requirements of the Gardens are many and in 1977, for example, included the planning of new glasshouses such as a three span block of glass for the Tropical Section; designing the internal and external landscaping of the new Alpine House; choosing sites for the eight trees that were planted on Children's Day to commemorate the Queen's Silver Jubilee and improving the main public entrance area at Wakehurst Place. All work is carried out in liaison with the Sections concerned and draft plans and specifications submitted to all involved including architects, engineers and horticulturists.

The educational work, until recently, has been primarily concerned with the production of educational labels. These are illustrated labels carrying about 150 words of text and describe features of botanical or horticultural interest. These labels are produced by a photo-etch process onto photosensitised aluminium sheets. Recently, the Unit has become more adventurous and has completed a large exhibit on tropical ferns which is to be displayed in the newly landscaped House No. 2 of the Ferneries and will shortly embark on a similar display for the new Alpine House. At times the Unit also becomes involved in the compilation and illustration of leaflets, technical booklets, programmes for official visits etc.

Being a centrally placed Unit near the Curator and Deputy Curator, a number of administrative duties are dealt with including the monitoring of both financial expenditure and staff complement for the Division in liaison with Administrative Division. Also, conducted tours for official visitors and parties are organised and arrangements made for visits to the Living Collections from representatives of the press, radio and television.

You may gather from this account that the work of the Planning Unit is interesting and varied and has great potential to expand, especially with the endless possibilities open on the educational side, public education being an increasingly important role of botanic gardens.

KEW GUILD JOURNAL, BACK NUMBERS

Year	No.	Year	No.	Year	No.	Year	No.
1894	— 17	1919	— 15	1939-40	— 20	1959	— 22
1895	— 4	1920	— 16	1941	— 17	1960	— 31
1896	— 15	1921	— 15	1942	— 17	1961	— 30
1897	— 12	1922	— 13	1943	— 17	1963	— 29
1901	— 14	1923	— 13	1944	— 19	1964	— 23
1904	— 15	1925	— 15	1945	— 19	1965	— 22
1905	— 16	1926	— 14	1946-7	— 14	1966	— 99
1906	— 15	1927	— 17	1948	— 18	1967	— 138
1908	— 15	1928	— 15	1949	— 16	1968	— 130
1909-10	— 9	1929	— 24	1950	— 16	1969	— 124
1911-12	— 12	1930	— 3	1951	— 19	1970	— 91
1913	— 16	1931	— 14	1952-53	— 3	1971	— 145
1914	— 16	1932	— 1	1954	— 18	1972	— 160
1915	— 15	1933	— 19	1955	— 18	1973	— 148
1916	— 16	1934	— 6	1956	— 18	1974	— 187
1917	— 16	1936	— 9	1957	— 17	1975	— 36
1918	— 15	1937	— 9	1958	— 21		

The above is a list of back numbers of the Guild Journal, which are being sold to members at 10p per copy to clear stocks.

Any member wishing to purchase copies (to complete their sets) should either enclose an additional 15p for (UK) postage or make arrangements to collect them from the gardens. Copies may be reserved by contacting the Treasurer, Ron Rule and may also be collected at the A.G.M.

* * *

JOB OPPORTUNITIES

During the course of each year several enquiries are received at Kew asking if we can recommend suitable candidates for positions in various fields but mainly botanic gardens and allied gardens overseas. Obviously we approach Kewites who are about to or have left Kew recently and are likely to be interested but the opportunities seem to exceed the number of people available. If you are looking for a position particularly overseas please let us know as we may be able to help you. Please do not expect more than an acknowledgement to your enquiry but your name will be noted and you will receive details of any position which we think is appropriate.

R. I. BEYER, Deputy Curator

* * *

PHOTOGRAPHIC ARCHIVES

Members are requested to send a print, and negative if possible, of an up-to-date head and shoulders black and white photograph for record purposes. Please send them to the Secretary, Kew Guild, RBG, Kew. For members' information the telephone number of Kew Gardens is (01) 940 1171.

REPORT ON THE 1977 KEW GUILD AWARD PROJECT

By TIMOTHY VAUGHAN

Last June I had the good fortune to visit the Canary Islands, a visit that lasted four weeks taking in the islands of Gran Canaria, Tenerife and La Gomera. The aims behind this sojourn were to study the plants, their associated communities and habitats, to see the recently constructed Jardin Botanico "Viera y Clavijo" on Gran Canaria, and to observe the effects that tourism, agriculture and increased urbanisation are having on a group of tiny islands. I was assisted financially by the Kew Guild Award Scheme. This was begun in 1974 to help finance worthwhile projects of a broadly horticultural or educational nature by members of the Kew Guild. The first award was made in 1976 to assist Kew Students to extend a botanical trip to Spain.

Lack of space precludes me from going into too much detail, so my report will be confined to activities and observations made on Gran Canaria, the island on which I was based. Gran Canaria has perhaps suffered more cruelly than any other island in this group from the axe of the woodman and charcoal burner. It is thought that less than 1 per cent of the original forest remains; the remnants of the once abundant laurel forests are confined to two narrow gorges on the north-west of the island, and a small area of Pine forest is still extant in the higher regions of the hinterland.

As with many nations, the Spanish have been extremely short-sighted over the destruction of this natural resource. Their forests were, and still are an important link in the water supply chain as they condense moisture brought in the form of clouds by the Trade Winds. On condensing, the water drips to the ground gradually and is soaked up, thereby replenishing underground reservoirs. When these forests are cleared, heavy rain runs off the slopes and is lost, causing severe soil erosion. This fact alone emphasises the need for preserving their wooded areas, though I feel that with population pressure and lack of interest by the government in nature protection, it seems unlikely that much will be saved.

Over half the land on Gran Canaria has at one time or another been under cultivation, and had a marked influence on the natural vegetation, both in the depletion of native species and introduction of alien elements. Two very serious weeds are *Opuntia ficus-indica* and *Agave americana*. The former is a relic from the mid-19th century, when the Cochineal industry was returning the islands nearly one million pounds per annum. Owing to the invention of artificial colorants this trade suffered a severe decline and little is now cultivated though alas, instead of the cactus disappearing with the industry, it is now a pernicious intruder.

Perhaps the most important crops grown today are tomatoes and bananas although the latter is losing popularity owing to water shortages and competition from South America. Crops of lesser importance are potatoes, beans, vines and cut-flowers. Once profitable and now seldom seen are citrus and sugar-cane, it was from these islands that sugar-cane first went to the New World.

Tourism is big business on Gran Canaria and many acres of land, particularly in the south of the island are now occupied by vast hotels and innumerable holiday bungalows. Now besides the loss of agricultural land and areas of special botanical interest, the construction of these resorts has resulted in a very serious problem. With a transient population in excess of 500,000 people, all used to and expecting hot and cold running water, the island's water consumption is far exceeding annual precipitation. Wells have been sunk in many places and in all mountainous parts water is collected and conducted through pipes for many miles to reservoirs for irrigation purposes and domestic use. The situation is becoming critical in Gran Canaria, with the ground water table steadily sinking, resulting in sea water seeping in, and unless this process is halted, Gran Canaria will dry up and die.

Despite all this the island still has an extremely rich and varied flora, the reason being that it is one of striking contrast causing an unusual diversity of habitats. A person with botanical leanings making a study trip to these islands would be wise at first to visit the botanical garden at Tafira Alta, just eight miles from Las Palmas. My hotel was conveniently situated five minutes from the gardens, and I spent much time during the first week studying there.

The garden, begun in 1952 through the foresight and enterprise of Dr Eric Sventenius, comprises some 60 acres sited in a natural setting in the valley of Guiniguada. It is primarily a collection of plants from the Canaries, Azores, Cape Verde Islands and Madeira, many of which are now endangered and difficult to find in the wild. Eighteen gardeners maintain the living collection and run the large nursery designed for the propagation of these indigenous species, whilst a small scientific staff is engaged in research on cytology, phylogeny and classification of the flora. Recently more land has been purchased for the expansion of these gardens;—a hill behind is being left to attain its former climatic climax; a cactus garden, designed by a former Kew employee is in the process of being planted; an area of land has been designated for the establishment of exotic plants from various regions of the world; plans for a glasshouse complex are under way as is a garden for medicinal and economically important plants. It appears likely then that this garden is to become a scientific and horticultural institute of international standing.

The four weeks passed all too quickly, and it was with a heavy heart that I left these islands for England. All in all it was an enjoyable and memorable stay, and I was loath to leave the many new friends that I had made there. I hope that this brief report is some justification for my receiving the award.

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THE STORY OF THE R.B.G. CHRISTIAN FELLOWSHIP

By F. NIGEL HEPPER, The Herbarium

Every Friday lunch-time students and members of staff meet in a room at St. Anne's Church, Kew Green, for Bible Study and prayer. Sometimes a visiting speaker comes and numbers are then increased from a handful to twenty or so; occasionally a film or other function is held during an evening when invitations are widely spread. On all these occasions members share their faith in the Lord Jesus Christ and show that the message of salvation recorded in the Bible is relevant today.

This is not a recent venture since it was originally started by Geoff Collins in 1954, and I remember he asked me to lead the first meeting when I recall speaking on Psalm 40! We used to meet in one of the Kew Palace flats where Reg Chuter lived—he was in the arboretum and now works in Cambridgeshire. Geoff Collins is now on the staff at Hampton Court having been at Tresco Gardens and Inverewe. A note appears on page 208 of the Kew Guild Journal 1955 (Events of 1954) about the formation of the 'Christian Union' and it is interesting to follow up the reports in later issues. There was a gap until the 1964 Journal (p.389) when Brian Howard wrote that "the Fellowship, now two years old, has grown from strength to strength". He also contributed the following year's notes (1965 p. 548) but in 1966 (p.667) Marion Jones (now Mrs Graham) wrote the report. Peter Goodbury then became secretary and he wrote in the 1967 (p.772) and 1968 (p.888) issues. At that time nurses from Richmond Royal Hospital attended some of the meetings too.

Although regular meetings continued during the next few years there appear to be no reports until 1972 (1973) issue (p.114). John Hacker, now in Colombia after doing an M.Sc. in USA, also contributed a note in the Journal of 1973 (1974) when he recorded that the Fellowship had affiliated to the Workers Christian Fellowship. This has been a great encouragement for several years since WCF does great work in ministering to groups and isolated Christians in offices and factories all over the country.

In 1978 it is good to have the support of two first year students, Ian Crisp, who is Student Chairman and Steven Ashworth, Secretary. Alan Radcliffe-Smith (Herbarium) has succeeded Cliff Townsend as Staff Chairman and Tom Reynolds (Jodrell Laboratory) is the Treasurer.

COMMITTEE SPOTLIGHT: YOUR SECRETARY

Dr. Margaret Stant, our new Honorary Secretary, was educated at Sir John Deane's Grammar School, Cheshire, and University College London, where she graduated with a First Class Honours B.Sc. in Botany and later was awarded a Ph.D. degree for her thesis on the shoot apex. Margaret joined the staff of the old Jodrell Laboratory in 1950 and now continues her studies of plant structure as Principal Scientific Officer in charge of the Cell Physiology Laboratory (See write-up elsewhere—Ed.).



Dr. Stant is a Fellow of the Linnean Society, the Royal Microscopical Society, and the Royal Horticultural Society and is also a Member of the Society for Experimental Biology. She was Secretary of the Lawn Tennis Club for a number of years and has participated in many of the Gardens sports, social and cultural activities.

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KEW GUILD AWARD SCHEME REPORT

By ALLEN PATERSON. Chairman: Award Scheme Sub-committee

Donations, particularly from Guild members, continue to come in and these combined with the fund-raising efforts have brought the Scheme's holdings towards £2,000. While this is a pleasing situation it will be remembered that Awards are made only from interest on the capital. Hence continuing efforts need to be made to ensure the Award Scheme's viability.

The Award for 1977 went to Tim Vaughan, a second year student, to assist in botanical studies on a visit to the Canary Islands. His report (which is a requirement of recipients of an Award) is published in this journal.

Eighty Guild members and their friends were enthusiastic in their appreciation of the Award Scheme Soirée, held (by kind permission of the Director) in No. 1 Museum in September. A fork

supper was prepared and served by committee members and their wives. Music was provided by a string band from the Guildhall School of Music. Profits for the Scheme were not large but the occasion was so enjoyable that something similar is planned for 1978.

Much more profitable to the funds was a generous donation from proceeds of the grand Jubilee Promenade Concert held at Kew in the summer. The Committee are most grateful for Professor Keith Jones' efforts in this. He, too, made overtures on the Committee's behalf to invite Mr. David Attenborough, the well-known naturalist, to be Patron of the Award Scheme.

With such help and your Committee's work we can hope for a successful time ahead.

* * *

PROMENADING AT THE PALMHOUSE

By Professor KEITH JONES

The decision was taken early last year that Kew's second Jubilee event should be an open-air concert on the Palm House Terrace. Happily The Royal Military School of Music, Kneller Hall, was able to provide its No. 1 Band and Trumpeters and the evening of July 15th was the chosen date. With these essentials fixed, the organising committee swung into action to produce all the arrangements essential for any successful event. DOE took responsibility for producing the concert platform, lights and amplification, Museums promised to provide the posters and help with the design of tickets and Stationery Office agreed to produce a programme. With great enthusiasm Messrs Paynter and Quentin, our restaurant Managers, looked forward to producing wines, and all the Divisions at Kew promised all the co-operation that was asked. Slowly but surely everything began to take shape and the nature of the evening could be visualised. The band would play a substantial amount of regal and ceremonial music, whilst the patrons would promenade around the Pond, the rose garden and even inside the Palm House with wine in their hands. As the sun set the illuminations would shine forth encircling the Pond and picking out the Queen's Beasts, whilst the Palm house would be suffused with an internal glow. All very imaginative perhaps, but that is precisely what occurred in the event.

There should be a spoken Eulogy to the Queen of course, which would come at the interval. Mr. Alan McMahon was engaged for this and Cranmer's speech on the young Elizabeth I from Shakespear's Henry VIII was chosen for him to read. The amplifiers were

arranged for his voice and for the announcements of the musical items, but not for the musicians who assumed that their sound would carry well across the water.

Should we have fireworks? They would certainly produce a lovely climax to the evening, but not having previously been let off within the gardens, at least within living memory, and certainly never within the proximity of the Palm House, would we face the risk of setting our trees alight or even worse, destroying the Palm house itself? These appalling conjectures are laughable now, but at the time were taken quite seriously by some and so, having taken the responsibility for deciding on fireworks, which were to be exploded over the centre of the Palm house at that!, I must confess to no little concern and some disturbed nights. After various dreaming of the Hindenburg disaster and the Crystal Palace, I once had a vision of a tombstone with an epitaph which read:—

'Here lie the remains of Jones 'The Rocket'
Who made a vast hole in the Treasury's pocket
Was cursed by them at the final curtain
With a loud Amen from Decimus Burton'.

However the manufacturer of the fireworks, the Rev. Lankaster, was confident that his mortars, if let off correctly, could do no significant harm, whilst the pyrotechnics team from Kneller Hall assured me that they had a reasonably high success rate on occasions like ours. However we let off a few of the contraptions on a trial evening and apart from frightening the entire bird population of Kew and bringing down six Canada Geese and a helicopter, no real harm was done.

The principal guests for the evening were to be Princess Margaretha, Mrs. Ambler and Mr. John Ambler and they and other distinguished personages would be entertained by the Director and the Organising committee. So all was set. The publicity was adequate, the tickets were selling well, our arrangements were complete and the weather set fair.

As early as 7 p.m. on the evening, a substantial queue was forming outside Victoria Gate. At 7.45 the gates were opened and a surge of people streamed into the grounds and set off hot-foot to occupy the 600 or so available chairs. Many sat on the grass, particularly around the Pond, and elaborate picnics began to emerge from wicker baskets. By 8.15 the area was looking quite full—the air was warm, the sun was shining and there was hardly a breeze and then one of the main fuses on our entire electric circuit blew! The DOE rapidly went into action in the depths of the Palm house, whilst the band began to play. Almost immediately Heathrow began to use, for the first time in a week, the

flight paths immediately above us. Music did not travel across the pond—even the noise of the modest though Hereulean Fountain was sufficient to drown it—though its contribution was made only between the passages of the aircraft. But at last the fuse was repaired and the lights came on and it was decided that the amplification system, which was not in anyway designed for the band, would have to be used. It worked reasonably well and music finally suffused all the area to the delight of the patiently attending throng. Promenading began in earnest and the wine started to flow in unexpected quantities. Corkscrews broke under the strain—a desperate crisis relieved only when the waitresses—each thoughtfully carrying a personal instrument in her handbag—produced it. Almost 1100 bottles were sold during the evening. Aircraft noise then of course diminished in importance and when Concorde appeared overhead at a particularly patriotic moment, it was given a cheer.

The illuminations were a success, put into second place only by a particularly lovely sunset. The Palm house looked lovely and was finally crowned with a glory of gorgeous fireworks let off to accompany a sea battle in Henry Woods Fantasia on British Sea Songs. Soon afterwards the music ended, and at 11 p.m. a very happy and very well behaved multitude made their ways to the exit. They had been present at an unique event. To see Kew in the sunset alone would have been a privilege but to the accompaniment of music and promenading it was clearly a double pleasure.

Altogether almost 3900 tickets were sold and probably closer to 4000 people were present, but next morning the site was singularly free from litter or broken glass and no damage was done to the vegetation. Neither were there any corpses in the Pond as some had feared. The evening had been a great success and our public had behaved, as I was sure they would, with impressive dignity.

The result of that memorable night was a prolonged warm feeling in the breasts of thousands of people and a strengthening of our very good relationship with our public. In addition we were able to present £1,500 to the Queen's Jubilee Fund and almost £500 to the Kew Guild Award Scheme.

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NEWS OF KEWITES AT HOME AND ABROAD IN 1977

Compiled by MARTIN J. S. SANDS

ARI ARMONY (1964), who is now Director of Parks at Ramat Gan, Israel, lectures in Haifa's Technion to 5th year students of Architecture in addition to his design work on open spaces, parks and two of the city's main Piazzas.

Writing in May 1977, Mrs. PHYLLIDA Barker (née TIETZE) (1968) notified the Guild of her marriage on 12 June 1976, and we wish her and her husband, Douglas, every happiness. At the time of writing, Phyllida was continuing her work in Otley, West Yorkshire, but was hoping to begin study for a degree in Botany.

On 9th March 1977, CHRISTINA BARNDON resigned from her post as an Assistant Scientific Officer in the herbarium where she had worked since September 1968.

JOHN BESWICK (1967), who is a Landscape Architect in the Public Building Department at Adelaide, has begun a new section which is progressing well. He looks forward to meeting any Kewites if they visit Adelaide.

Mrs MARGARET BEYER (wife of the Deputy Curator) began work on 28th February, 1977 in the Conservation Unit (Threatened Plant Committee Secretariat) to operate the new IBM typewriter acquired because of its computer capacity.

CHRIS BOWLES (1976) is now in charge of the new Botanic Garden at Maracaibo in Zulia State, Venezuela.

Professor K. W. BRAID, who was on the Kew Herbarium staff from 1921-1925, celebrated his 90th birthday on 2nd June, 1977, in Glasgow, where a reception was given in his honour.

In October, PETER BRANDHAM (Jodrell Laboratory) left with Susan Holmes and Brian Stannard (both of the Herbarium staff) for two months collecting in Kenya which proved to be particularly memorable because of unusually heavy rains which made the journey hazardous on many occasions.

In June 1977 the title of Visiting Professor was conferred on The Director, Mr. J. P. M. BRENNAN, by the University of Reading. In the Autumn he visited the United States and travelled in Mexico for several weeks.

PETER H. BRIDGEMAN (1964) recently resigned as Honorary Secretary of the Arboricultural Association and as head of the Arboricultural Department at Merristwood Agricultural College, to develop a full-time Arboricultural Consultancy Service. Based at home, he is now concentrating on giving advice to tree owners and those responsible for trees or tree work. A book on "Tree Surgery" by Peter Bridgeman is reviewed elsewhere in this journal.

DIANE BRIDSON (Herbarium) was promoted to Higher Scientific Officer from 1st January 1977.

CHRISTINE BRIGHTON (Jodrell Laboratory) with Professor Keith Jones (q.v.), attended the Helsinki Chromosome Conference held in the Autumn.

In February 1977, GEORGE BROWN (Assistant Curator, Arboretum and a former Vice-President of the Guild) retired after 21 years continuous service at Kew. George, who's father before him was a Kewite (1903), came first to Kew after the Second World War as a special trainee. In the Guild he is particularly remembered for the many years of hard work he put into editing the journal. On Wednesday 16th February a large number of staff gathered in the Jodrell Lecture Theatre to wish him a formal farewell (see elsewhere in this journal for details) and the Guild extends its best wishes to him and his family for a long and happy future.

From 3rd March to 4th April, DICK BRUMMITT worked in Zomba, Malawi helping to establish a new National Herbarium. In November he returned for a few weeks under O.D.M. auspices to help James Seyani with its development and to advise on the organisation and curation of the herbarium.

Mr ARTHUR BULLOCK, who was a Principal Scientific Officer in the Herbarium retired from Kew in 1968. When Mr Peter Taylor visited him in October, he sent good wishes to all who knew him.

B. L. BURTT (1951) formerly a member of the herbarium staff, returned from the Royal Botanic Garden, Edinburgh on one or two occasions during the year, to continue his work on the family *Gesneriaceae* as well as on his own collections.

With deep regret we have to record the death in the Autumn of JACK CHEEK (1929), who died in office as a Vice-President of the Guild, elected in 1976 (see Obituaries).

Congratulations to Mr. C. E. CHERRY (1938) on his being awarded a Queen's Silver Jubilee Medal, in June 1977, only a few months before his retirement (in January 1978) from his post as Parks Superintendent of the London Borough of Sutton. We wish him a long and happy retirement.

On 26th October, TOM CLAIDEN retired after serving 31 years at Kew, 30 of them as a night constable.

Mr. GEORGE COBHAM was appointed as Gardens Supervisor for the Temperate Nursery on 5th December 1977.

HENRY COCKER, (1933), who is an international Garden Consultant and Horticultural Advisor, living near Venice in Italy, is still working although now over 70 and officially retired. Writing in July 1977, he reported—"At present I am designing a public park for the small town of Fossalta di Piave (near Venice) in front of a new Town Hall, and on the site of a former football field, where there is not a single blade of grass. My ninth book is in its final proof stage, while I still travel to Milan every few weeks in the capacity of advisor to the Lombardy Horticultural Society."

DAVE COLEMAN (1967), was for five years a Sales Director of a sports ground contracting firm until 1977, but from 1st December, he commenced his own business called "Recreation, Sportsturf and Leisure," which involves sales and advisory/consultancy work to local authorities, sports grounds, golf courses, universities, private schools and colleges throughout Scotland. In a letter to the editor he extends greetings to all Kewites and especially former colleagues.

J. B. COMBER (1955), still working in Indonesia, moved in 1977 from Medan in Sumatra and is now based at Jakarta in Java.

MARK COODE (Herbarium) was promoted to Senior Scientific Officer from 1st February 1977 and took charge of the editing of "Kew Bulletin".

GEORGE COOMBERS, though he has moved to a new address, in Caanoga Park, is still living in California. He left Kew in 1915 and is a life-member of the Guild.

It is with regret that we record the death of Major E. J. H. COWARD (1932), who for some time had been living in Douglas, Isle of Man.

On 25th May, PHILIP CRIBB (Herbarium) visited Innsworth in Gloucestershire to see an old meadow full of *Orchis mono* (about 10,000 plants). His visit took place shortly before the field was to be ploughed and he was there to advise on transplanting specimens to an adjacent meadow destined to become a reserve. At the end of December he left to attend the World Orchid Conference in Bangkok.

L. DE CLERQ (1938), who is a nurseryman in Ghent, Belgium, visited the Gardens in October to examine the Palm collection.

At an informal meeting in March Dr. DENNIS, who retired from the herbarium staff in 1975, was presented with a specially bound copy of Kew Bulletin 31 no. 3 which consists of papers on mycology brought together and published in his honour.

M. G. DICK (1975), who is a Technical Officer in the Dundee Parks Department, passed the N.D.H. intermediate practical examination with written exemption in 1977.

JOHN DRANSFIELD (herbarium) left on 14th March, 1977, for nearly a year's work in S.E. Asia under the O.D.M. (Colombo Plan). For most of the year he was stationed at the Forest Research Institute in W. Malaysia, working on the taxonomy and utilisation of rattans but during October he was a representative of Kew on the R.G.S. Gunung Mulu expedition in Sarawak. In September in Malaysia, John was married to Dr. Soejatmi Soenarko who was a member of the herbarium staff, Bogor, Indonesia, and who worked on grasses for a Ph.D. at Reading University, a few years ago. Early in the morning on their wedding day, Martin Sands conveyed greetings from their friends at Kew by telephone. Afterwards, they spent a holiday in the Cameron highlands of

of Malaysia before John left to join the Gunung Mulu Expedition. The Guild wishes them a long and happy future together.

K. E. ECCLASTON, who left Kew in 1972, passed the N.D.H. Intermediate examination in 1977.

JOHN ELSLEY (1964), who is Curator of Hardy Plants at the Missouri Botanical Gardens, wrote in March 1977 of the severe winter experienced in the region with temperatures dropping to 14° below zero and on several occasions the wind chill factor was as low as 50° below zero. The evergreens had suffered badly, and a deficit of rain was also experienced.

CHARLES ERSKINE (Assistant Curator, Arboretum Section) left on 21st June, 1977 for a three week study tour of arboreta in the United States.

Dr. LINDA FELLOWS, formerly a Wellcome Research Foundation Fellow at King's College, London, took up her appointment as a Senior Scientific Officer in the Biochemistry section at Kew, where she is responsible for chemotaxonomic research in the former ARC suite of laboratories situated in the Melon Yard of the Gardens. Later in 1977, she attended the Phytochemical Society Symposium on the Biochemistry of Phenolics at the University of Ghent.

Dr. KEITH FERGUSON (Herbarium) worked on the pollen morphology of the *Papilionoideae* for six months at the University of Oklahoma, beginning in January, 1977.

DAVID FIELD (Herbarium) left on 6th June 1977 for six-weeks field work in Kenya, chiefly collecting material of *Ceropegia* (*Asclepiadaceae*) in the company of Mr. and Mrs. Powys of Rumuruti.

In October HANS FLIEGNER (Assistant Curator) accompanied John Simmons (Curator) (q.v.) on a collecting expedition to several parts of Northern Iran.

After a period of over 30 years service in the Gardens, Constable ARTHUR GADD retired in July 1977. His father and grandfather both worked in the Gardens before him and Arthur had been on duty at the Jodrell Gate during his last 10 years of service.

In November, Mrs. L. C. F. GLENISTER retired as Supervisor of Mounters in the herbarium after 21 years of very valuable service. She had been Supervisor since June 1975 and her place has been taken by Mrs. M. W. Glover.

Mr. PETER GREEN (Deputy Director and Keeper of the Herbarium) spent a week in April, accompanied by several colleagues, at the Jardín Botánico, "Viera y Clavijo", Las Palmas, attending a symposium on "Plants and Islands". In June he visited Scotland for two days and was present at a reception given in honour of Professor K. W. Braid (q.v.) on 2nd June, while at the end of August he attended the final *Flora Europaea* symposium held at Cambridge.

Congratulations to CHRIS GREY-WILSON (Herbarium), firstly on the award by Reading University of a Ph.D. based on his

thesis "*Studies on Impatiens of Africa*", and secondly on his engagement to Miss Christine Dent, who worked in the Jodrell Laboratory for a year until September 1976.

Congratulations to JEFF GRIMES (Herbarium) and his wife Hannah on the birth of a son, Simon Timothy on 15th April 1977.

BILL GRIMES, who for a number of years has given valuable service in the Administrative Division, retired on 30th September 1977.

JOHN HACKER (1975), sending best wishes to all at Kew in early 1977, reported that he was nearing the end of his Master's degree course in Plant Physiology at Rutgers University, New Jersey and commented that "the past two years have been tremendous and with the help of the Garden Club of America, I have been able to see quite a lot of the country". He is now beginning a cut-flower rose nursery in Colombia, S. America.

BRIAN HALLIWELL (Asst. Curator, Alpine & Herbaceous Section) left in October to visit Western Australia before going on to undertake some field-work in Tasmania.

A letter received from Dr. RAYMOND HARLEY (Herbarium) in March 1977, indicated that he was just about to depart on his third trip in Brazil, to the Pico des Almas and the Serra de Itibera. With him were Simon Mayo (q.v.) and Ruth Storr (q.v.) and despite many adventures since the beginning of their expedition in January, they had already collected nearly 1700 numbers of specimens.

STEWART HENCHIE took charge of the L.C.D. Services Section in the Gardens from 2nd May and later his promotion to Assistant Curator was confirmed. In July he joined Alan Radcliffe-Smith (q.v.) to collect plants in the Yemen, and writing in August from Sana'a he reported the vegetation in the nearby hills to be very dry and overgrazed, but that there was hope of good progress in the Taiz Area.

Following completion of his period as a student at Kew in 1977, ANDREW HENDERSON travelled to S. America on an expedition supported by an Ernest Thornton-Smith Travelling Scholarship award.

In May NIGEL HEPPER (Herbarium and formerly Guild Secretary) visited Uppsala to read a paper at a symposium on Plant Conservation and Botanical Exploration marking the 500th anniversary of the University. At the end of June he spent a week attending a Congress on "Agriculture in the Land of the Bible" at the invitation of the Israeli Ministry of Agriculture.

Prof. J. HESLOP-HARRISON (formerly Director of Kew) returned to Britain with his family on 20th March after several months in the United States.

In July, Mr. R. D. HOGG (1937) moved to Tarleton in Lancashire from Reading and sent his best wishes to the Guild.

Mrs SUSAN HOLMES (Herbarium), who has collected in East Africa on several occasions, accompanied Peter Brandham (q.v.) and Brian Stannard to Kenya in October to concentrate particularly on collecting material for her continuing study of succulent *Euphorbiaceae*.

In July, Professor R. E. HOLTUM (Herbarium) was officially appointed as an Honorary Research Associate of the Royal Botanic Gardens in recognition of the continued and important contribution he is making to botanical science. Later in the year, in November, he won the national finals of the clear speech competition of the British Association for the Hard of Hearing.

On 1st January 1977, SHEILA HOOPER (Herbarium) was promoted to Principal Scientific Officer, and on 19th February, accompanying Cliff Townsend (q.v.), left to undertake field-work in East Africa. Owing particularly to closure of the Kenya/Tanzania border, their plans were subject to last minute revision and being confined to Kenya they spent most of the time collecting between the Tana river region and Mt. Elgon.

SHELLEY (néé FOUNTAIN) who left Kew in 1975, is now married (Mrs. HOZIER) and living in Amersham.

In May and June, DAVID HUNT (Herbarium) visited several countries, including Switzerland, Austria and Hungary, to lecture and attend meetings of the Board of the International Organisation for Succulent Plant Study.

From 8th October, 1977, CHARLES JEFFREY (Herbarium) spent nine weeks in Venezuela working on *Cucurbitaceae*.

COLIN W. JONES (1968) took up an appointment in 1977 with Welwyn Hatfield District Council as Deputy Parks Superintendent.

The University of Reading, in June 1977, conferred the title of Visiting Professor on Dr. KEITH JONES (Keeper of the Jodrell Laboratory and immediate Past President of the Guild). Later in the year he attended the Helsinki Chromosome conference where he gave a paper on the rôle of chromosome fusion in karyotype evolution in higher plants.

MARTIN KAY (1976) wrote in July of his experience in the new Ariamehr Botanic Garden, Tehran in Iran where he is working in the Landscape section with Bill Bessler (1967) (see K.G.J. Vol. 9 p.483).

MARGARET KELLY resigned from her post of Clerical Assistant in the Library in October after 10 years working at Kew, five of them in the Library. Her husband, Teddy, previously on the staff of the Living Collections Division, has taken a new post at Windsor and they are now living in the Great Park.

Miss A. Y. KENTON (Jodrell Laboratory) was promoted to Scientific Officer from 1st January 1977.

Congratulations to Dr. FRANCES KUPICHA (Bentham-Moxon Trust) on her marriage in May 1977 to Dr. David Hibbard of Cambridge who was at one time on the staff of the British Museum (Natural History).

The 1977 Ernest Thornton-Smith Travel Scholarship was awarded to Miss SANDRA LECHE following the completion of her third year as a student. On 26th September she flew to Brunei via Hong Kong, to join the Royal Geographical Society's expedition to the Gunong Mulu area of Sarawak.

GWILYM LEWIS (Herbarium) left for three months in Malaysia on 25th July. He spent the first two months based at Kepong working for some time with Dr. John Dransfield (q.v.) and during October joined the Royal Geographical Society "Gunong Mulu Expedition" in Sarawak.

Congratulations to Mr. GREN LI LUCAS on his appointment as Deputy Keeper of the Herbarium from 1st February 1977. In April he attended a symposium on "Plants and Islands" in Las Palmas, and in May read a paper at a symposium on Plant Conservation and Botanical Exploration in connection with the 500th anniversary of Uppsala University. Together with several staff members he attended the final *Flora Europaea* symposium held in Cambridge at the end of August.

Mrs SUE MCMILLAN, who came to work at Kew in January 1973, retired from her post at the end of September to start a family. While at Kew she did invaluable work on the 'Kew Record of Taxonomic Literature' and was a member of the Tennis Club. Later in the year news was received of the birth of her son, Robert on 31st October, and the Guild offers its congratulations to Susan and her husband.

JOHN MACONOCHIE Australian Liaison Officer in the Herbarium from 1976-1977, returned to Alice Springs in Australia at the end of August.

In May WESSEL MARAIS (Herbarium) paid a short visit to the Paris Herbarium in connection with his work on the "Flora des Mascareignes".

In August BRUCE MASLIN of the West Australia Herbarium took up his position as Australian Liaison Officer in the Herbarium taking the place of John Maconochie (q.v., see K.G.J. no. 81). Mr. Maslin is working on *Leguminosae*.

BRIAN MATHEW (Herbarium) was promoted to the rank of Principal Scientific Officer from 1st January 1977, and in May spent a week studying material of *Crocus* and *Iris* in the Herbaria at Geneva and Paris.

SIMON MAYO (Herbarium) as a member of an expedition to Bahia, led by Dr. Harley (q.v.) collected many specimens during their time in Brazil, during the early months of the year. In December he visited Vienna, Budapest and Munich to study herbarium

collections of *Araceae*, particularly material of importance in typifying species described and illustrated by Schott. On his return he was married to Anne Mortimer (2nd year student) on 19th December.

In April Dr. R. MELVILLE (1968) formerly a member of the Herbarium Staff, visited the Jardín Botánico in Las Palmas for a symposium on "Plants and Islands".

In recognition of the continued and important contributions he is making to botanical science, the Permanent Secretary in 1977 appointed Dr. C. R. METCALFE as an Honorary Research Associate of Kew. Until his retirement a few years ago, Dr. Metcalfe was keeper of the Jodrell Laboratory and was President of the Guild from 1960-1961.

R. K. MOWFORTH (1935) recently retired (1977) after 28 years as Head of the Horticultural Department, Staffs. College of Agriculture. He has been a life member of the Guild since 1937.

Mrs. MOLLY NORMAN was transferred on promotion to Executive Officer in 1977, after ten years working at Kew. For some time she had worked in the herbarium office, but later moved to the finance and personnel sections of the Administrative Division.

PATRICK NUTT (1953) foreman at Longwood Gardens, Pennsylvania, writing in early 1977, commented on the effects of the severe winter in the United States: "Out of doors the landscape has a sombre grey-brown appearance not seen for many years, and we are counting losses and replacing plants".

On 6th December, Corporal-Constable BERT OLROG retired after 31 years service at Kew. After his wartime army service in India, Burma, Malaya and Vietnam, he began work at Kew as a labourer. Later he joined the tree gang and in 1952 transferred to the constabulary being posted first in the Museums, then the Herbarium and finally in the Living Collections Division.

DAVID OWEN (1970), after returning from Malawi, was appointed Gardens Supervisor in the Arboretum North in 1977.

DAVID PEGLER (Herbarium) left on Tuesday 16th August for Tampa, Florida to attend the Second International Mycological Congress. Afterwards he undertook a collecting trip to the Lesser Antilles, visiting Martinique, Guadeloupe and Dominica. In October writing from an address half-way up the volcano Soufrière, on the island of Guadeloupe, which threatened to blow up in 1976, he reported good collections made under trying conditions of heat and humidity on extremely steep mountain sides.

DAVID PHILCOX (Herbarium) left on 5th July for two months, working on the Flora of Trinidad, based at the National Herbarium, University of the West Indies, St. Augustine.

BARRY R. PHILLIPS (1972) left after 3½ years lecturing at Merristwood in 1977, to take up a new appointment as Horticultural Officer for the Ministry of Agriculture Fisheries and Food in

Bermuda. The post involves landscape designing, new projects, advisory work and some teaching.

Regretfully, we have to record the death in early 1977 of TED POOLEY, who for many years looked after the Director's Garden at Kew. Ted lived in the Groom's Cottage on Kew Green which is now an administrative building and, within the Gardens is still known as Pooley's Cottage.

In April, 1977, C. POPHAM (1964) left Bristol and is now living in Australia.

PAUL POTTER on completing his third year as a diploma student was appointed Gardens Supervisor in the Tropical Section of the Living Collections Division, in 1977.

Since December 1976, DORIS Pringle (née NEWTON, 1956) has been living in Colchester following her move from Nairobi, Kenya. When she worked at Kew in the Herbarium, she was for many years assisting Mr. Ballard.

ALAN RADCLIFFE-SMITH (Herbarium) accompanied by Stewart Henchie (q.v.), left on 23rd July to collect plants in the Yemen. After a false start, due to their first plane's faulty undercarriage and a delay in Khartoum, they arrived in the Yemen on 27th. They collected first in the Taiz area followed by a period in the central region based in Sana'a. Later in mid-September, Alan joined an expedition in Western Oman for a month.

STEVE RENVOIZE (Herbarium) attended a symposium in Las Palmas in April 1977 and in December was awarded an M.Sc. from Reading University.

In February IAN RICHARDSON (Herbarium, later Jodrell Laboratory) visited the herbaria of Geneva and Paris to work on the species of *Diospyros* for the "Flora des Mascareignes", and in October transferred to the Jodrell Laboratory to work on the tree root survey in the Anatomy section.

In June, L. A. L. RICHARDSON (1931) wrote a long and interesting letter to the Guild. In it he recounted that, when he went to work in the gardens of Peradeniya, Ceylon he had to have "280 Military huts, all with concrete foundation removed and the garden restored as close as possible to its original condition". He continued, "I had almost completed this work when the Gardens were inundated by the worst floods in their history with two-thirds of the garden's roads and lawns wrecked. The lake was completely filled with mud and clumps of bamboo 10ft. through were uprooted the gauge at the University registered over 24" in the 24 hours and I had 300 gardeners' families to cater for, with no connection with food supplies in Kandy. This was one occasion when the "Bread fruit" trees came in handy". In October 1948 he moved to Western Australia with his first wife and five boys and began his own business in Perth. His letter continues "I bought a florist shop and gradually turned it into a garden shop under the

name of "Garden Craft" and in due course, 1950, built a nursery selling mainly advanced trees and shrubs . . . we became known as the "Instant Garden People" ". Mr. Richardson's first wife died in 1954 and he is now married again with two daughters. In his letter he writes proudly about the achievements of his sons, the eldest a Superintendent of Parks and Gardens for a local town with eight square miles of territory, the second in accountancy, the third with a removal business in San Francisco, but planning to start a cactus farm in Arizona, the fourth a microbiologist, and the fifth a sales manager. All his sons are married and he has 16 grandchildren.

MARTIN SANDS (Herbarium and Kew Guild Assistant Secretary) left on 17th October to spend two weeks in Holland working on *Begonia*. For most of the time he worked in the Rijksherbarium, Leiden, but also visited Wageningen to examine a very fine living collection of *Begonias*, established and maintained for genetic study by Professor Doorenbos.

TONY SCHILLING (Deputy Curator, Wakehurst Place) went to the Himalayas twice in 1977, undertaking high-mountain walking in Nepal both in April and October.

During October, the Curator, JOHN SIMMONS, accompanied by Hans Fliegner (q.v.), undertook a collecting expedition to Northern Iran. They were joined by botanical staff from the new Ariamehr Botanic Garden and made three trips to localities not previously collected botanically. October was chosen with the intention of collecting seeds of many hardy trees and shrubs which occur in the Elburz and Zagros Mts. Over 250 collections were made from selected good high altitude provenance and, breaking their return journey for one day, they were able to collect briefly in the Troodos Range in Cyprus.

JACK SKELTON retired at the end of April after 12 years service at Kew in the Messenger Service.

ROGER SMITH (Wakehurst Place) was promoted to Senior Scientific Officer from 1st January, 1977.

In August Miss INGRID SPENCER resigned from her post of Assistant Librarian in the Kew Library, to take up an appointment in the British Library Bibliographical Services Division.

With regret we record the death of Mrs. MANNA SPRAGUE (1946) in January 1978. A few months earlier in September she was visited by the Director at St. Faiths' Nursing Home, Western Road, Cheltenham. At the age of nearly 92 she was being well looked after and sent her best wishes to old friends at Kew. Mrs. Sprague, before her marriage to Dr. T. A. Sprague, was Miss M. L. Green and worked on the Index Kewensis in the Herbarium.

It is with regret that we have to record the death in 1977 of FRANK SQUIBBS (1924). He was a life member and Vice-Presi-

dent of the Guild from 1967-1969. The Guild was represented at his funeral on 9th November by Mr. Frank Knight.

BRIAN STANNARD (Herbarium) travelled to Kenya with Peter Brandham (q.v.) and Susan Holmes in October and after their collecting expedition in the north of the country, he continued in Kenya for several weeks, undertaking further field-work for part of the time with Mike Gilbert of the East African Herbarium. Brian returned to Kew in early January 1978.

RUTH STORR (Supervisor, Palm House) spent the first few months of 1977 collecting on an expedition to Bahia, Brazil, led by Dr. Raymond Harley (q.v.).

HUGH SYNGE (Conservation Unit, Herbarium) spent a week in April with several colleagues at a symposium in Las Palmas.

NIGEL TAYLOR, who has a personal interest in *Cactaceae*, completed his degree at Reading University in 1977 and joined the staff on 11th July. He began work as a Scientific Officer, based in the Herbarium, and his main task is the verification of major groups of plants in the Living Collections.

In February, 1977, CLIFF TOWNSEND (Herbarium) with Sheila Hooper (q.v.) travelled to Kenya for a period of collecting in an area between the Tana river and Mt. Elgon.

TIM VAUGHAN (second year student) who was the second recipient of assistance under the Kew Guild Award Scheme, travelled to the Canary Islands in June. He worked in Tenerife and La Gomera, making observations on the effect of agriculture and tourism on the vegetation.

For a time at the end of February, BERNARD VERDCOURT (Herbarium) worked in the Leiden herbarium (Holland) studying specimens of *Leguminosae* from Papua New Guinea.

Miss M. M. WHITING, who left Kew in 1966 after many years voluntary work in the herbarium and who is a member of the Guild, now lives in a home in Littlehampton, Sussex and was aged 96 in 1977. When the Director visited her in June she sent warm greetings to all her old friends at Kew.

GERALD WICKENS (Herbarium) spent a month in the Sudan from 4th June, under the auspices of Hunting Technical Services acting for the United Nations Development Programme, Dafur Project. During this period he was able to visit the hitherto botanically unexplored Qoz Salsigo on the Chad/C.A.E. border.

Dr. HELEN WILKINSON, who worked for some time in the Jodrell Laboratory, took up a six-month period appointment in November to work on the Index Kewensis.

JEFF WOOD (Orchid Herbarium), spent five weeks collecting orchids in Cyprus, Crete, the Greek mainland and Italy. The visit to Cyprus was undertaken to gather specimens and make field ob-

servations in connection with his account of the Orchids in preparation for the Flora of Cyprus.

In October KEITH WOOLLIAMS (1963) wrote to report that the new and expanding Waimea Arboretum, Hawaii, where he works, is actively involved with the conservation of endemic Hawaiian plants, and it has now had approval for its 'Waimea Arboretum Foundation', a non-profit making organisation for their educational and scientific work.

OBITUARIES

HERMAN SPOONER Past-President



We sadly record the death of Herman Spooner on November 23rd 1976 aged 98 yrs. He began life in the small village of Lawford near Manningtree, Essex. From there he set out on a journey which was to make him one of the important disseminators of information about plants and related topics. A County Scholarship earned him two years training at the London Horticultural Society's Gardens, then at Chiswick.

He entered Kew in 1899 on the two year course. Then he took his botanical skills and methodical mind into the now legendary Royal Exotic Nursery owned by James Veitch and Sons. In those days the six nurseries sold plants hot from

the expeditions of the great collectors.

Wilson's first seeds of *Davidia involucrata* passed through Mr. Spooner's hands. When Wilson later vacated the post of Scientific assistant to the Curator of the Imperial Exhibition, Herman Spooner took over.

In the next thirty seven years he rose to be Superintendent of the Imperial Institute, London Exhibition Galleries. His work there was of a truly international nature.

Herman lived a long life and retained fitness until his last few years. He retired at 65 and went to live in North Wales. He read

to refresh his mind and climbed most of the 8,000 ft. mountains with the Dyserth and District Field Club.

To his relatives and closest friends we extend our sympathy.

CEDRIC VAN RYNVELD

Your editor met Mr. Van Rynveld in Durban in 1976. Some time later news was received that he had died as a result of a car accident in South Africa. Mr. Van Rynveld was a practising Landscape Architect of repute. Deepest sympathies are extended to all his family.

FRANCIS BALLARD

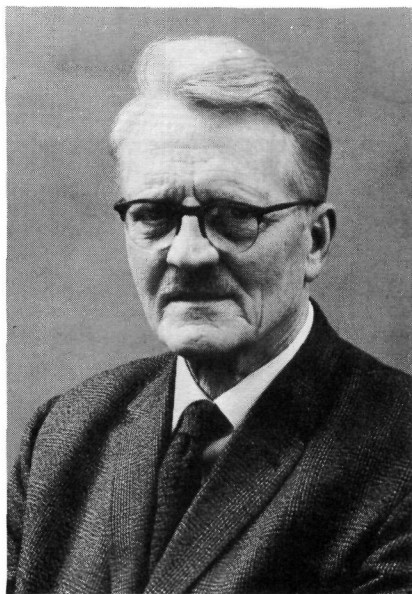
Francis Ballard passed away on 25th January 1976 aged 79. With his passing the Kew Guild lost a staunch Kewite and the Herbarium lost a very great source of effort and knowledge with regard to ferns. The fact that he retired at 65 but continued to work at the Herbarium in a voluntary capacity was typical of Francis.

He was born in 1896 and served his country in the Great War 1916-19. His war service took him to France, Salonika, Egypt and Italy.

Jobs were not plentiful after the war but he eventually became a clerk in a camera factory. There was no Open University in those days but Francis obtained his degree by

studying four nights a week at the Chelsea Polytechnic. With this he entered Kew and began his work on ferns. When Dr. Hubbard was in Australia he turned to the grasses.

He loved his plants and enjoyed being amongst the great collections at Kew. At home he had his own collections, stamps; coins; match-box covers; postcards; cigarette cards and books. He had nine cameras and many photographs of Kew Botanists (now with Dr. George Laurence at the Hunt Museum in America). His finest collection will be those friends he leaves behind. To his closest friend and wife Esmie we extend our deepest sympathies.



JACK CHEEK

We were all of us happy to see Jack Cheek as Vice-President of The Guild 1976-1977. We were equally saddened to learn of his death on the 7th September 1977. The Kew Guild was fortunate to have such a man as a member and latterly a leader.

I can personally add to the history as written in last years journal and recall the early years of my own apprenticeship when Jack was one of the mentors at Manchester. He was a fine example to all who worked for him. He did his own job and encouraged others to do theirs. In retirement he lost none of his enthusiasm for his life's work and kept in touch with colleagues of all ages.

His grandchildren will undoubtedly never forget the many walks they had in Burnham Beeches with Jack and his wife.

To Ellie we extend our deepest sympathy and kindest thoughts.

W. B. PRITCHARD



It is with regret that we have to report that the death occurred in hospital on the 28th February 1977 of Mr. W. B. Pritchard after a long illness.

Mr. Bill Pritchard or "Taffy" as he was fondly known by his many friends and colleagues, will be remembered for his long association with Llandudno, North Wales, where he was Parks Superintendent for 35 years.

Born at Trefnant, near Denbigh, Mr. Pritchard commenced his career at Penrhyn Castle, Bangor, where he served his apprenticeship. He was a student at Kew from 1923 to 1925 and served with the Leeds and Manchester Parks Departments before moving to

Llandudno where he remained for the remainder of his service with Local Government.

Mr. Pritchard will be remembered for his great interest in the Happy Valley Gardens, Llandudno, and for the many improvements he carried out there.

He was actively connected with various organisations including the Rotary Club of Llandudno, of which he was at one time president. He was president of the local Nalgo branch and founder member and president of the local group of the Guide Dogs for the Blind organisation.

In 1963/64 Mr. Pritchard was Vice President of the Institute of Parks and Recreation Administration. He had a wonderful sense of humour and was always willing to lend a helping hand. Sympathy is extended to his widow and relatives and friends.

The Kew Guild has an opportunity in the Obituaries to show its respect for kindred spirits who have passed on. The Guild wishes to extend its sympathy to the bereaved. If you hear of a Kewite's death please write to me and if possible send some history. For many, the Obituary in the Kew Guild Journal is a re-introduction to someone they last heard of many years ago. Where the deceased is a senior Kewite the photograph may put a face to a well known and respected name.

I know many of you will help in this sad but valuable part of the Journal.

Graham Burgess, Longstock Park, Stockbridge, Hampshire.
Tel. Stockbridge 540 anytime.

ROYAL BOTANIC GARDENS, KEW
SCIENTIFIC, TECHNICAL AND ADMINISTRATIVE STAFF
 (31st December 1977)

This list will be printed in the Journal every second year—alternating with the Rules of the Kew Guild.

Designations and qualifications have been omitted after all names owing to the administrative difficulties in updating them.

*Represents Kew Guild Member

Director: Professor J. P. M. Brenan*.

Deputy Director: P. S. Green*.

ADMINISTRATION

Secretary/Establishment Officer: S. Brookes.

Higher Executive Officer: E. Timbs.

Senior Personal Secretary: Miss M. P. Roberts.

Personal Secretary: Miss E. M. Garner.

Executive Officers:

Personnel Section: J. E. Blunden.

Finance: J. A. Vaughan.

Common Services and Public Relations: N. R. Brown.

HERBARIUM

Keeper (Deputy Chief Scientific Officer): P. S. Green*.

Deputy Keeper (Senior Principal Scientific Officer): G. L. Lucas*.

Note:—The family sequence follows that of Bentham and Hooker, 'Genera Plantarum' (1862-1883) with modifications.

Section 1 (Ranunculaceae—Elaeocarpaceae)*

Principal Scientific Officer: R. D. Meikle*.

Senior Scientific Officer: C. Grey-Wilson.

Higher Scientific Officers: Miss J. K. Bowden, M. J. E. Coode.

Assistant Scientific Officer: Mrs. S. Dickerson.

Section IIa (Linaceae—Moringaceae)

Principal Scientific Officer: L. L. Forman.

Senior Scientific Officer: M. J. S. Sands*.

Assistant Scientific Officer: B. Stannard.

Section IIb (Connaraceae—Leguminosae)

Principal Scientific Officer: Dr. R. M. Polhill.

Scientific Officers: Mrs. J. S. Page, Mrs. D. M. Polhill.

Assistant Scientific Officer: G. P. Lewis.

Section IIIa (Rosaceae—Cucurbitaceae)

Principal Scientific Officer: Dr. G. E. Wickens*.

Higher Scientific Officer: Dr. A. J. Scott.

Assistant Scientific Officer: Miss M. Bywater.

Section IIIb (Begoniaceae—Rubiaceae, Verbenaceae & Labiatae)

Principal Scientific Officer: Dr. R. M. Harley.

Scientific Officer: Mrs D. M. Bridson.

Assistant Scientific Officer: Miss A. Fitton.

Section IV (Valerianaceae—Salvadoraceae)

Principal Scientific Officer: C. Jeffrey.

Senior Scientific Officer: Dr F. Davies.

Scientific Officer: Miss P. Halliday.

Assistant Scientific Officer: Miss C. M. Wilmot-Dear.

Section V (Apocynaceae—Selaginaceae)

Principal Scientific Officers: F. N. Hepper*, Dr. R. K. Brummitt*.

Senior Scientific Officer: D. V. Field*.

Section VIa (Plantaginaceae—Balanophoraceae)

Principal Scientific Officers: C. C. Townsend, D. Philcox.

Assistant Scientific Officer: Miss J. A. Panter.

Section VIb (Eupharbiaceae—Ceratophyllaceae)

Principal Scientific Officer: A. Radcliffe-Smith.

Senior Scientific Officer: Mrs. S. Holmes.

Assistant Scientific Officer: Miss S. Jellis.

Section VII (Orchidaceae)

Principal Scientific Officer: P. G. Taylor*.

Higher Scientific Officer: Dr. P. J. Cribb.

Scientific Officer: J. L. Gilbert*.

Assistant Scientific Officer: J. J. Wood.

Section VIII (Hydorcharitaceae—Rapateaceae)

Principal Scientific Officers: W. Marais, B. F. Mathew.

Scientific Officer: Mrs E. J. Cowley*.

Section IX (Flagellariaceae—Cyperaceae)

Senior Scientific Officers: Miss S. S. Hooper, Dr. J. Dransfield.

Scientific Officer: S. J. Mayo.

Assistant Scientific Officer: Miss S. Andrews.

Section X (Gramineae)

Principal Scientific Officer: Dr. D. Clayton.

Higher Scientific Officer: S. A. Renvoize.

Scientific Officer: Dr T. A. Cope.

Assistant Scientific Officer: Miss R. A. Cross.

Section XI (Pteridophyta)

Principal Scientific Officer: Dr. F. M. Jarrett*.

Scientific Officer: J. W. Grimes.

Assistant Scientific Officer: P. J. Edwards.

Section XII (Fungi)

Principal Scientific Officers: Dr. D. A. Reid, Dr. D. M. Dring.

Senior Scientific Officer: Dr. D. N. Pegler*.

Scientific Officer: B. M. Spooner.

Assistant Scientific Officer: Miss S. J. Arthur.

Section XIII (Gymnosperms)

Principal Scientific Officer: D. R. Hunt*.

Assistant Scientific Officer: Miss M. A. Wood.

Section XIV (Palynology)

Principal Scientific Officer: Dr. I. K. Ferguson.

Assistant Scientific Officer: Mrs. M. M. Poole.

Index Kewensis and Kew Record

Higher Scientific Officer: Mrs. J. L. M. Pinner.

Scientific Officers: Miss T. A. Bence, Mrs. G. L. R. Bromley.

Dr H. P. Wilkinson

Plant Conservation Unit

Principal Scientific Officer: G. Ll. Lucas*.

Scientific Officer: N. Taylor.

Clerical Assistant: Miss H. Flint.

General Services Unit

Higher Scientific Officer: Miss I. Blewett.

Assistant Scientific Officer: Miss R. A. Davies, Mrs G. S. Bidgood.

Bentham-Moxon Trust

Secretary: Mrs. J. M. Brookes.

Botanists: H. K. Airy-Shaw*, H. M. Burkill, O.B.E.,* (useful plants of West Tropical Africa), Mrs. I. I. Scott (useful plants of West Tropical Africa), Dr.

I. B. K. Richardson (Flore des Mascareignes).

Botanical magazine: Miss C. King.

Conservation Unit: A. M. H. Synge, Mrs. A. M. Beyer.

Plant Quarantine: Mrs. S. Marsh.

Liaison Officers:

J. Maconochie (Australia), T. Arnold (S. Africa).

Flora of Iraq: E. R. Guest

Photography

Senior Photographer: R. R. Zabeau.

Illustrators

Leading Illustrator: Mrs. J. A. Lowe.

Freelance Artists: Mrs. Sealy, Miss E. M. Stones.

Library

Chief Librarian and Archivist: V. T. H. Parry*.

Deputy Librarian: Mrs D. C. Scott.*

MUSEUMS DIVISION

Principal Scientific Officer: Miss R. C. R. Angel.*

Higher Scientific Officers/Guide Lecturers: Miss L. M. Ponsonby, Mrs. J. A. Stubbs.

Information Officer/Exhibition Officer: P. Reid.

JODRELL LABORATORY

Keeper: (Senior Principal Scientific Officer) Professor K. Jones*.

Cytogenetics Section

Senior Principal Scientific Officer: Professor K. Jones*.

Principal Scientific Officer: Dr. P. E. Brandham.

Senior Scientific Officer: Dr. S. Owens*.

Higher Scientific Officer: Miss C. A. Brighton.

Scientific Officers: Miss M. A. T. Johnston, Miss A. Y. Kenton.

Anatomy Section

Principal Scientific Officers: Dr. D. F. Cutler,* Dr. M. Y. Stant*.

Senior Scientific Officer: Miss M. Gregory.

Scientific Officers: R. E. Moore, Mrs. R. M. O. Gale.

Assistant Scientific Officer: T. J. Lawrence.

Biochemistry Section

Principal Scientific Officers: Dr. L. Fellows, Dr. T. Reynolds.

Assistant Scientific Officers: Miss I. Gilbert, A. Skinner.

Workshop

Scientific Officer: C. Cunningham.

Photography

Principal Photographer: T. A. Harwood.*

Plant Physiology Section (Wakehurst Place)

Senior Principal Scientific Officer: Dr. P. A. Thompson.

Senior Scientific Officer: D. J. C. Fox.

Higher Scientific Officers: Dr. J. Dickie, R. D. Smith.

Scientific Officers: J. S. Prior, R. D. Sanderson

Assistant Scientific Officers: Mrs. P. Newman, Miss S. M. McGrath, R. Probert.

LIVING COLLECTIONS DIVISION

Curator: J. B. Simmons*.

Deputy Curator: R. I. Beyer*.

Clerical Assistant: Miss L. Stimpson.

Planning Unit

Garden Supervisor: Miss A. M. E. Chabert.*

Herbaceous Section

Assistant Curator: B. Halliwell.

Garden Supervisors: A. G. Cook (Order Beds and Rock Garden), A. Hall (Tender Alpine Plants and Herbaceous Plantings), P. M. Rutherford (Decorative Display Unit.)

Arboretum Section

Assistant Curator: C. M. Erskine*.

Garden Supervisors: J. H. Mateer (Southern Unit), D. R. Owen* (Northern Unit), P. G. S. Smallcombe (Western Unit).

Temperate Section

Assistant Curator: H. J. Fleigner.*

Garden Supervisors: G. H. Cobham (Tender and Hardy Woody Plant Nursery),
R. H. Rule* (Temperate House), Mrs. R. Storr (Palm House).

Scientific Officer: Mrs. Y. Spencer (Plant Records Unit).

Tropical Section

Assistant Curator: J. F. Warrington.*

Garden Supervisors: G. E. Nicholson (Tropical Propagation Unit) G. A. Pattison* (Orchids and T-Range), P. R. Potter (Tropical Plant Propagation and Display), J. R. Woodhams (Ferneries).

Services Section

Assistant Curator: S. J. Henchie.*

Garden Supervisors: R. W. Howard (Tree Maintenance Unit), R. Hughes* (Machinery Services Unit).

P & G Supervisor: J. Dixon (Transport).

Technical Section

Assistant Curator: D. W. H. Townsend.*

Higher Scientific Officer: J. S. Keesing* (Plant Reception and Despatch; Technical and Conservation Liaison; Science Support Unit).

Garden Supervisor: P. L. Gibbon (Technical Propagation Unit).

Staff and Student Training

Supervisor of Studies: L. A. Pemberton*.

Garden Supervisor: A. J. Hale.*

Wakehurst Place

Deputy Curator: A. D. Schilling.*

Garden Supervisors: F. G. Greenough, D. Mason, J. Lonsdale.

Higher Executive Officer: L. C. Bryenton.

(Kindly compiled by Anne Chabert, Planning Unit.—Ed.)

* * *

ADDRESS LIST OF OLD KEWITES (February 1978)

N.B.—Designations/Abbreviations are not shown, neither are Horticultural qualifications. However the editor will be pleased to show these when individuals request it in writing.

(The names of Past Presidents are preceded by a dagger, Life members by an asterisk. The year of leaving Kew is indicated. Members are asterisked on the staff list (elsewhere) who are currently working at Kew. By agreement with the Department of Education and Science holders of the Kew Diploma may place Dip.Hort.(Kew) after their names: this is not indicated in the following list).

- 1973 Abrahams, M. R., c/o Mrs. Lillington, 19 Worthing Road, Southsea, Hants.
 1959 Adams, R., 63 Franks Avenue, New Malden, Surrey, KT3 5DD.
 1938 *Addison, G. H., Lot 5, Owen Road, Darlington, W. Australia, 6070.
 1957 Addison, P., 6 Walney Road, West Derby, Liverpool, L12 5EW.
 1949 Ainslie, E., 32 Bakewell Road, Hazel Grove, Stockport, Cheshire.
 1939 *Airey, J. E., Westmoor Gardens, Mansel Lacy, Hereford.
 1945 *Albert, Mrs. H. (Miss H. J. Stent), 65 Summet Street, Oyster Bay, Long N.Y., U.S.A.
 1962 Aldous, J., Roebuck, Delly End, Witney, Oxon.
 1961 Allen, J., Velmead, Winsford Park, Beaworthy, Devon.
 1945 *Ambrose, Miss R. M. (See Mrs. J. Souster).
 1926 *Anderson, A. W., C., 324 Church Street, Timara, New Zealand.
 1965 Anderson, G. H., B.E.M., 29 Glenwood, Harmans Water, Bracknell, Berks.
 1974 Andoh, A. P.O. Box 967, Lusaka, Zambia.
 1962 Anwyll, R. B., Hop Garden Cottage, North Mundham, Chichester, Sussex.
 1947 *Armstrong, C. E., Kesteven Farm Inst., Caythorpe Court, Nr. Grantham, Lincs.
 1970 Armstrong, G. D., Botanic Garden of Smith College, Northampton, Mass., 01060, U.S.A.
 1931 *Arnold, T. A., Box 90, Bedfordview, Transvaal, S.A.
 1920 *Ash, Mrs. W. (E. M. Harper), 22 Palace Court, Hampstead, N.W.3.
 1944 *Ashby, Mrs. D. (F. A. Sharps), 145 High Street, Harston, Cambridge.
 1956 Ast, R., Huobhalde 12, 6330 Cham/Switzerland.
 1954 Attenburrow, D. T., c/o Fisons, Levington Research Inst., Ipswich, Suffolk.
 1950 Attwood, C. A., Atlast, East Lane End, Fairmoor, Morpeth, Northumberland.
 1910 *Aubrey, A. E., 83 Newbridge Street, Wolverhampton, Staffs.
 1939 *Aves, J. J., P.O. Box 1454, Parks Dept., Pretoria, S.A.
 1972 Axton, Miss M. R., 41 Wilmot Way, Banstead, Surrey.
 1920 *Baker, E., The Myrtyles, Bucknalls Lane, Garston Herts.
 1939 *Balch, R. W., East Taieri, R.D.2, Mosgeil, Otago, New Zealand.
 1971 Bamkole, C. B., Parks & Gardens Unit, Univ. of Ife, Ile-Ife, Nigeria.
 1962 Baren, M. E., 4 Branwell Drive, Haworth, W. Yorks.
 1958 Barker, L. P., 29 Somerville Square, Mossip, Stafford, ST17 9JK.
 1968 Barker, Mrs. D. (nee Miss P. Tietze), 41 Caxton Rd., Otley, W. Yorks, LS21 3LL.
 1923 *Barker, W. H., Loxton, Behind Berry, Somerton, Somerset.
 1966 Barnes, A. L., "Brandon," 35 Walton Avenue, Twyford, Adderbury, Banbury, Oxon.
 1960 Barnas, H. P., P.O. Box 42, Wigmore, Pennyhill Lane, West Bromwich.
 1962 Barnett, R. C. A., 2 Hanarkisim Street, Kfar, Shmaryahu, Israel.
 1963 Barwani, M. R., 5 Natal Road, London, N.11.
 1927 *Bassett, W. E., M.B.E., 6 Ravenswood Road, Croydon, CR0 4BL.
 1930 *Bate, C.
 1962 Bauman, R. C., M.Sc., Box 3924, Wilmington, Delaware, U.S.A., 19807.
 1954 Baverstock, E., 1 The Cottage, Sidcup Place, Sidcup, Kent.
 1956 Bayliss, C., 236 Rochester Road, Gravesend, Kent.

- 1953 Bee, R. A., Dir. of Parks, Parks Dept., Cumberland House, Crown Square, Manchester, M60 3BB.
- 1942 *Bell, Miss C. O. (See Mrs. C. O. Martin).
- 1963 Bell, H., 5 Grays Road, Mynydd Isa, Mold, N. Wales.
- 1918 *Bell, Miss V. S. (See Mrs Danes.)
- 1964 Bentall, M., P.O. Box 984, East London, S.A.
- 1947 Benton, P., 35 Hutton Moor Road, Weston-Super-Mare, Avon.
- Staff Bernard, D. J. W.
- 1967 Bessier, W. E., 41 Bell Rd., East Molesey, Surrey, KT8 OSS.
- 1967 Beswick, J., c/o State Reception Centre, 37 Woodville Road, Woodville, S. Australia.
- 1955 Billet, M., 176 Downhall Road, Rayleigh, Essex.
- 1924 *Binnington, R., 152 Bellemoor Road, Southampton.
- 1918 Bintner, Mrs. J., (Harper), 54 Re de la Tourelle, Boulogne, Seine, France.
- 1940 Bird, E., 25 Cannons Meadow, Tewin, Welwyn, Herts.
- 1946 Bird, Miss H. (See Mrs. G. Williams).
- 1945 Blowers, J. W.,
- 1951 Boddington, H. P., 4 Arundel Avenue, Morden, Surrey.
- 1944 *Bolton, Miss I. E. (See Mrs. I. E. Cranfield).
- 1938 Boreman, A. E., 58 Ferndale Road, Ashford, Middlesex, TW15 3PP.
- 1948 Borrett, A. H. V., 31 Barton Road, Woodbridge, Suffolk IP121 Q5.
- 1966 Bowen, R. D., 54 Oakridge Road, High Wycombe, Bucks.
- 1949 Bowles, H. A., The Flat, Cross Park Nursery, Coach Road, Newton Abbot, Devon, TQ12 1EW.
- 1947 Boyle, J. J., Parks Supt. House, Morrab Gardens, Penzance, Cornwall.
- 1925 *Braid, K. W., O.B.E., Lochview, Skene, Aberdeen.
- 1975 Brazier, P., Langley House Trust, Rehabilitation Centre, Wing Grange, Leics.
- 1963 Breach, D. J., 29 Beaulieu Drive, Pinner, Middlesex.
- 1962 Bridgeman, P. T., 11 Lees Heights, Carlbury, Oxon., OX7 3EZ.
- 1964 Bridgeman, P. H., "Little Rosings", Wood Street, Ash Vale, Aldershot, Hants
- 1960 Briggs, Miss B. (See Mrs. Cole).
- 1942 Brooks-Purchas, Lady P. M. K., (Milburn) The Thatched House, Roundwood Lane, Haywards Heath, Sussex.
- 1963 Brooks, P. S., 21 Newtown, Codicote, Hitchin, Herts.
- 1903 *Brown, E., "Chez Nous", Grove Road, Cranleigh, Surrey.
- 1943 *Brown, G. B., "Grasscroft", 98 The Avenue, Gosport, Hants.
- 1977 †Brown, G. E., 4 Lane Head Close, Moor Lane, Croyde Bay, Nr. Braunton, North Devon.
- 1950 Brown, L. R., Dept. P.S., 33 Parkland Grove, Ashford, Middlesex.
- 1946 Brown, R. M. S., 5 Walton Road, Tonbridge Kent TN10 4EE.
- 1928 *Bruins-Lich, H., 231 Main Street, Waterkloof, Pretoria, Transvaal, Rep. of South Africa.
- 1970 Bruty, H., B.E.M., 23 Dagmar Road, Kingston, Surrey.
- 1968 Bullock, A. A., Highlands Cottage, Ploughhill, Nr. Crediton, Devon.
- 1974 Bulmer, C., 1900 Annette, Irving, Texas 75061, U.S.A.
- 1945 *Bundy, E. F., 62 Combemartin Road, Southfields, London, S.W.18.
- 1945 Bundy, Mrs. (Scott), ditto.
- 1972 Burgess, A. G., Oak Ferns, Longstock Park, Stockbridge, Hampshire.
- 1954 Burras, J. K., Superintendent's Cottage, Botanic Garden, Rose Lane, Oxford.
- 1922 *Burrell, Miss L. C. (See Mrs. S. T. Lees).
- 1951 *Burt, B. L., Royal Botanic Gardens, Edinburgh.
- 1949 Bury, W., Parks Superintendent, Piel View, Public Park, Barrow-in-Furness, Lancashire.
- 1921 *Butcher, H. G., 11 Bridle Road, Epsom, Surrey, KT17 4EP.
- 1977 Butler, S. C., Rural Development Academy, Bogra, Bangladesh.
- 1919 *Bysouth, Mrs. R. A., (Davies), Doctor Cooks Nursing Home, Box 1007, Lloydminster, Alberta, Canada.
- Calkins, Mrs. H., Acquisitions Library, Morton Arboretum, Lisle, Illinois, U.S.A.
- 1976 Carder, Miss V., 11 Achilles Road, West Hampstead, London, N.W.6.

- 1912 *Cannon, H. A., Uganda Coffee and Rubber Estates Ltd., Kampala, P.O. 53, Uganda.
- 1930 *Carr, G. E., 51 August Avenue, Scarborough, Ontario MIL 3M8, Canada.
- 1971 Carrick, J. L., Moon Crescent, Highbury, South Australia, 5089 Australia.
- 1959 Carter, B., 4 Ash Drive, Thornton-Cleveleys, Lancs. FY5 4DF.
- 1970 Catling, D. M., 1 Wisley Court, Sanderstead Road, Sanderstead, Surrey.
- 1961 Caton, Miss R. A., Hill Farm, Farnham, Nr. Bishops Stortford, Herts.
- 1929 *Catt, G. A., 21 Felton Street, Amelia Heights, Balcatta, 6021, West Australia.
- 1923 *Cavanagh, A. A., 5 Tehidy Road, Camborne, Cornwall.
- 1919 *Chandler, P., 205 Reading Road, Wokingham, Berks.
- 1939 Chantler, E., 27 The Ridgeway, Fleetwood, FY7 8AH, Lancs.
- 1938 † *Cherry, C. E., L.B. Sutton Technical Services Dept., 24 Denmark Road, Carshalton, Surrey SM5 2JG.
- 1961 Chuter, R., 42 Lonbeech Road, Chesterton, Cambs.
- 1946 Clark, J., S. Parks, Dover Parks Dept., Kent.
- 1948 *Clark, Mrs. J. C., (Miss Eperon), ditto.
- 1932 *Clarke, F., 69 Horringer Road, Bury St. Edmunds, Suffolk.
- 1933 *Clarke, T. R., Plumpton Nurseries Ltd., Sussex.
Clements, Mrs. R., (nee Colson), 48 Southlands Drive, Timsbury, Nr. Bath.
- 1958 Clift, M., Flat 2, Sunningdale Nurseries, Windlesham, Surrey.
- 1933 *Cocker, H. R., Casella Postale 5, Noventa di Piazze, Prov. di Venezia, Italy.
- 1959 Coghlan, R., Trevena, Holders, St. James, Barbados, W. Indies.
- 1967 Coleman, D., Glencroft, Lower Mains Road, Dollar, Clackmannanshire.
- 1959 *Collins, H., Craig House, Ham Common, Richmond, Surrey.
- 1939 *Collins, C. J., S., 42 Gainsborough Road, Colchester, Essex.
Colson, Miss R., (see Mrs. R. Clements).
- 1955 Comber, J. B., Ciba-Geigy, Agrochemicals, P.O. Box 259, Jakarta, Indonesia
- 1935 Commeau, J., 28 Avenue de Mendiguren, 06000, Nice, France.
- 1923 † *Conn, P. W. H., The Bridge, Surrey Road, Seaford, Sussex.
- 1949 *Constable, F., Parks, Cem. and Allotments Dept., The Council House, Corporation Street, Derby.
- 1921 *Cook, F. J., 16 Seventh Avenue, Walmer, Port Elizabeth, South Africa.
- 1945 *Cook, G. C., "The Conifers", Wright's Hall, Woolston, Southampton, S02 9HN.
- 1929 *Cook, L., 31 Cardigan Crescent, Milton, Weston-Super-Mare, Somerset.
- 1915 *Coombes, G., P.O. Box 1808, Thousand Oaks, California, 91360, U.S.A.
- 1925 *Cooper, E. C. W., "Jescot", Shrimpsney Road, Bognor Regis, West Sussex.
- 1935 *Corkill, W. J., Waen Rodyn Nurseries, Bodfari, Denbigh, Denbighshire.
- 1924 Coventry, T., 210 Towcester Road, Northampton.
- 1923 *Coward, E. F., 77 Southwood Road, Rusthall, Tunbridge Wells, Kent.
- 1920 *Craig, Mrs. A. P., The Hall, Headcorn, Kent.
- 1973 Craig, J. R., 93 Rowley Avenue, Sidcup, Kent.
- 1940 *Cramer, Johannes D. W., 395 Zephyr Street, Denver, 26, Colorado, U.S.A.
- 1944 *Cranfield, Mrs. I. E. (Miss Bolton), 30 Bramley Way, West Wickham, Kent.
- 1968 Cudd, M. R., 130 Beverley Way South, Raynes Park, London, S.W.20.
- 1956 *Curtis, E. W., Curator's House, Botanic Gardens, Glasgow, W.2.
- 1918 *Danes, Mrs V. M. (Bell), 5 Lime Close, Burgh-le-Marsh, Skegness, Lincolnshire.
- 1967 Davidge, R., Palavas, Hatch Close, Addlestone, Weybridge, Surrey.
- 1977 Davies, Miss H., 123 Amyard Park Road, St. Margarets, Twickenham TW1 2NN.
- 1938 *Davies, H. F., C., Ewanrigg Nat. Park, c/o Nat. Park Board, Salisbury, Rhodesia.
- 1940 Davies, P. W. C., S. of Parks, 20/22 St. George's Chambers, Merrial Street, Newcastle-under-Lyme, Staffordshire.
- 1919 Davies, Miss R. A. (See Mrs. Bysouth).
- 1951 Davies, R. S., Hawthorn Nursery, Lower Common, Longden, Nr. Shrewsbury.
- 1977 Davis, S., 1 Emmanuel Avenue, Gorleston, Norfolk.
- 1922 *Davis, Mrs. (Miss O. Rudolph), 3 Dean Road, Cricklewood, London N.W.

- 1974 Dawes, M. J., 3 Oak Lodge, 18 Oakhill Road, London, S.W.15.
 1944 *Dawson, D., 50 Blandford Avenue, Oxford.
 1936 *Dean, R. E., Regional Grounds Maintenance Officer, Reg.H.Q., Dept of Env., Lawnswood, Leeds, 17.
 1964 Deans, R. F., 4 Church Road, Silsoe, Nr. Bedford, Beds.
 1964 Dennis, Miss M. J., (See Mrs. Griffin).
 1960 Dixon, A. G., 43 Plough Lane, Wallington, Surrey SM6 8JW.
 1961 Dodds, B., Quality Farm, RR3, King, Ontario, Canada.
 1934 *Douglas, J. S., 52 Haining Road, Renfrew.
 1935 *Downes, W. F., 23 Smiths Road, South Park, Reigate, Surrey RH2 8HJ.
 1928 Duke, Miss M. M. (See Mrs. Wallace).
 1935 *Dumke, G. P. W., Berlin B.G., Berlin-Dahlem, Germany.
 1957 Dumont, T., 15 rue ch. de Tornaco, Cent, Luxembourg.
 1953 Dunball, A. P., 54 King's Court South, Chelsea Manor Gardens, S.W.3.
 1953 Duncan, C. A. A., P.O. Box 854, Grand Cayman Island, Brit. West Indies.
 1934 *Dyer, R. A., Bot. Res. Inst., Private Bag x101, Pretoria, South Africa.
 1961 Dyke, D., Rough Lodge, Nuneham Park, Nuneham, Courtney, Oxon.
 1973 Dykes, G., c/o Dyffryn Gardens, St. Nicholas, Cardiff, Wales.
 1945 *Eady, Miss M. C., Claydon House, Buckingham, Bucks.
 1946 *Eaton, H. J., Millbrook Cottage, Crowan, Praze, Camborne, Cornwall.
 1948 Edwards, D. G., D.F.C., Sundance, Yapton Road, Barnham, Bognor Regis, Sx
 1947 *Edwards, T. H., 190 Seaview Road, New Plymouth, Taranki, New Zealand.
 1919 *Ellis, Miss C. F. (Mrs. Somers).
 1956 Elton, T., 114 Moreton Road, Bushbury, Wolverhampton, WV10 8LB.
 1912 *Endres, H. W., 10140 Fieldcrest Lane, Ladue, St. Louis 24, Missouri, U.S.A.
 1932 *English, R. J., 279 Stockingstone Road, Luton, Beds.
 1948 *Eperon, Miss K., (See Mrs. J. Clark).
 1935 † *Eul, F. H., 1 The Moors Drive, Middleton Cheney, Banbury, Oxon.
 1962 Evans, D. T., 3 Church Cottages, Ropley, Alresford, Hants.
 1952 Evans, K., Undergraduate School of Applied Biology, Univ. of Bradford, Great Horton Road, Bradford, 7.
 1945 *Evans, Miss M. J. B. (See Mrs J. A. Letch).
 1969 Evemy, D. G., 4 Browning Avenue, Hanwell, Ealing.
 1927 † *Everett, T. H., New York B.G., Bronx Park, New York, U.S.A.
 1928 *Everitt, W., Mayfair, Ganteaume Crescent, East London, S.A.
 1937 *Ewart, J. W., Myers Road, Otumatai, Tauranga, New Zealand.
 1932 *Farley, G. C., 5 Harringay Gardens, London, N.8.
 1923 Farr, B.,
 1953 Farrar, T. H., 39 Fielden Close, Ducklington, Witney, Oxfordshire.
 1929 *Findlay, R. (Capt.), The Ship, Bryn-y-Baal, Mold Flintshire.
 1939 Fisher, F. W., 2 Hooper Avenue, Bath Road, Wells, Somerset, BA5 3NA.
 1915 † *Flippance, F., The Heaths, Station Road, Haslemere, Surrey, GU27 2PD.
 1928 *Floto, E. V., Brovaenget 11,2700 Bronshoj, Denmark.
 1958 Miss R. A. now Mrs R. A. Nicholson, P.O. Box 3, Mbubu, Tanzania.
 1976 Flower, H., 25 Croft Avenue, Southwick, Brighton, BN4 4AA.
 1949 Foat, C. D., Knutsford, Gt. Barton, Bury St. Edmunds, Suffolk.
 1945 Ford, F. J., 23 Louise Close, Great Yarmouth, Norfolk.
 1937 *Fordham, A. J., "Gay Farm" Norwood, Mass, U.S.A.
 1927 *Ford, G. W. J., Box 56, Mendenhall, Penna, 19357, U.S.A.
 1975 Fountain, Miss S., (See Hosier).
 1975 Fox, R., 5 Querneby Road, Mapperley, Notts.
 1946 Fraenkel, Miss E. R. (See Mrs. Gibson).
 1967 Frankland, B. V., 6 Bollington Road, Oadby, Leics.
 1936 Freeman, G. W. G., 2 Benton House Cottages, Heath House Road, Worplesdon Hill, Woking, Surrey.
 1926 *Fry, W. G., N.A.A.S., 70 Catfield Road, Fareham, Hants.
 1963 Gaggini, J. B., Tuliptree House, 7 Dybdale Crescent, Wellingborough, Northants.
 1952 Galloway, I. D., Director of Parks and Reserves, P.O. Box 2199, Wellington, New Zealand.

- 1947 Garwood, T., 188 Campkin Road, North Arbury, Cambs.
 1969 George, A. S., Western Australian Herbarium, Dept. of Agriculture, Jarrah Road, South Perth, W. Australia 6151.
- 1946 Gibson, Mrs. (Miss E. R. Fraenkel), 2421 25a Street, S.W. Calgary 4, Alberta 73E 1Z1, Canada.
- 1962 Giles, C. J., 25 Reginald Road, Southsea, Hants. PO4 9HL.
 1960 Gilkison, D. S., c/o Parks Dept., Civic Centre, Scunthorpe, Lincs.
 1946 † Gilmour, J. S. L., 5 St. Eliguis Street, Cambridge.
 1952 Gilmour, W. N. G., Chief Officer for Recreation, Culture and Health, South Yorks C.C., Barnsley, Yorks.
- 1937 *Goldsack, F. G. A., Greystones Leigh, Sherborne, Dorset.
 1956 Goodale, A. E. R., 64 Lashbrooks Rd., Rocks Pk., Uckfield, Sussex TN22 2AY
 1965 Goodall, Lt., J.P., R.N., Tudor Court Hotel, Queen's Grove, Southsea, Hants.
 1969 Goodbury, P. A., 3 The Green, Roseheath, Nantwich, Cheshire.
 1964 Gooding, P. A., Old Mill Nurseries, Stamford in the Vale, Farringdon, Oxon.
 1910 *Gould, A. R., 663 Kingsley, Palo Alto, California, 94303, U.S.A.
 1967 Graham, G. N., "Sharondale", Bryntirion Road, Bagilt, Clwyd CH6 6BZ.
 1948 *Grant, E. A., The Lodge, Baylis Park, 45 Woodlands Avenue, Slough, Bucks.
 1928 *Grant, J. G., 77 Tristram Drive, Creech St. Michael, Taunton, Somerset.
 1925 † *Greenway, Dr. P. J., O.B.E., P.O. Box 20209, Nairobi, Kenya, E. Africa.
 1963 Griffin, M. J., 1 Pinfold Close, Woodingdean, Brighton, Sussex.
 1964 Griffin, Mrs. M. J., (Miss Dennis), ditto.
 1937 † *Groves, G. R., O.B.E., Botanical Gardens, P.O. Box 100, Hamilton, Bermuda
 1946 Hack, H. R. B., Lane End Farm Cottage, Sheperds Green, Rotherfield Greys, Henley-on-Thames, Oxfordshire.
- 1954 Halhead, J., 2(A) Rosehill Park, West Sutton, Surrey.
 1933 Hall, H., 26 Alberton Street, 7200 Hermanus, South Africa.
 1971 Hallsworth, C. D., 10 The Mount, Stanford-le-Hope, Essex SS17 7HD.
 1916 *Hansen, C. Bekker, c/o Societe du Nadal, Quelimane, Mozambique.
 1933 Harper, A. E., Westleigh, 10 Pembroke Gdns., Appleton Pk., Warrington Lancs.
 1920 *Harper, Miss E. M. (See Mrs. Ash).
 1919 *Harper, Miss K. M. (See Mrs. Bintner).
 1964 Harrington, M. D., Aldon, 55 Park Hill Road, Otford, Sevenoaks, Kent.
 1962 Harrison, R. T., 53 Kingsdown Avenue, South Croydon, CR2 6QJ.
 1958 Hart, A., 15 Dean Hill Road, East Sheen, S.W.14.
 1966 Hart, C., 40 Crown Acres, E. Peckham, Tonbridge, Kent TN12 5HB.
 1977 Harvey, A. P., Flat 1, Park Lodge, 80 Auckland Rd., Upper Norwood, London S.E.19.
- 1956 Harvey, T. D., Plovers Hill, Strumpshaw, Norwich, NOR 772.
 1925 *Hayes, T. R., c/o Limuru Girls' School, Private Bag. P.O. Limuru, Kenya.
 1950 Haywood, P. A., 5 Rowan Park, Quarry Lane, Christleton, Chester.
 1947 *Hebden, F. J., M.B.E., Toreaves, The Highway, Luccombe Village, I.O.W.
 1961 Heine, H. H., Dr., Med., c/o Laboratoire de Phanerogamie du Museum National d'Histoire Naturelle, 16 rue Buffon, Paris (Ve), France.
 1964 Hellewell, J. D., 1 Nursery Lane, Harlow Hill, Harrogate, Yorks.
 1948 *Helm, J. D., "Woodvale", 15 Llandudno Rd., Penrhyn Bay, Llandudno, Caerns.
- 1946 *Helmsing, Miss N. J., (See Mrs. Nelson).
 1976 Heslop-Harrison, Professor J. J., Old Post, Hatfield Nr. Leominster Herts.
 1968 Heywood, H. G., Dep. Pks. Supt., Cemetery Office, Manchester Road, Warrington, Lancs.
- 1961 Hickman, N. C., 101 Higham Lane, Nuneaton, Warwickshire.
 1919 *Higgott, O. A. 108 Secor Road, Scarsdale, New York, U.S.A.
 1971 Hilton, C., 5a Colville House, London, W.11.
 1948 *Himson, Mrs. (Miss P. Weston), Buckland, Tasmania 7271, Australia.
 1948 Hingston, J. A., S., 139 Tadcaster Road, Dringhouses, York, YO2 2QJ.
 1949 Hingston, Mrs. (Miss J. Sharps), ditto.
 1960 Hitchcock, A. G., CH Parks Department, Dunbar, Natal, South Africa.
 1955 Hitt, S. D., 44 Edward St., Weston, Bath, Somerset.
 1937 *Hogg, R. D., M.B.E., 23 Riverview, Tarleton, Lancs. PR4.

- 1946 Hollis, D. C., 11 Gay Street, Putney, S.W.15.
 1930 *Holloway, H. M., P. O. Box 1454, Snr, Dist. S. of Parks, City Council, Pretoria, South Africa.
 1934 *Hoogstad, B. M. E., Silvergetter, 130 Hart Nibbrigkade, Den Haag, Holland.
 1934 *Hooper, E. G., 93 Mount Pleasant, Trevu Road, Camborne, Cornwall.
 1975 Hopper, E., Mill Cottage, College Walk, Winchester, Hants. SO23 9NA.
 1975 Hosier, Mrs. S. (nee Fountain), 9 Drakes Road, Amersham, Bucks.
 1973 Hoskins, N., 103 Manor Road, Guildford, Surrey.
 1925 *Howell, W. F.L.S., 8 Nursery Close, Polegate, Sussex.
 1965 †*Hubbard, C. E., C.B.E., 51 Ormond Crescent, Hampton, Middx.
 1953 Hubbard, D., 34 Carlbury Crescent, Darlington, Co. Durham.
 1952 Huggett, P. C., Grove House, Chalford, Stroud Gloucestershire.
 1961 Humphrey, B. E., 143 Greenhill Road, Winchester Hants.
 1961 Humphrey, Mrs. B., (Miss J. L. Taylor), ditto.
 1964 Hyde Trutch, Miss J. A. (See Mrs. Popham).
 1935 Hyland, G. A., S., 38 Hove Park Road, Hove, Sussex, BN3 6LJ.
 1969 Iles, C., Kier Cottage, Camp Road, Wimbledon, London, S.W.19.
 1905 *Ing, W. J., 5771-53rd Avenue, St. Petersburg, Florida, 33709, U.S.A.
 1974 Ivison, R., 11 Park Road, Waltham Cross, Herts.
 1976 Izard, C. H., 3 Gowers Close, Ardingly, Haywards Heath, W. Sussex.
 Jackman, H. J., 24 Slindon Road, Broadwater, Worthing, Sussex.
 1976 Jackson, M., c/o Students Union, University of Keele, Staffs. ST5 5BG.
 1940 Jenkin, Mrs. J. P., Bridge Cottage, Blackpool, Dartmouth, Devon.
 1923 *Jones, C., 11 Meadow Way, Bilton, Harrogate, Yorkshire.
 1930 *Jones, C. H., Box 803, Christchurch, New Zealand.
 1968 Jones, C. W., 25 Waterford Green, Panshanger, Welwyn, Herts.
 1959 †Jones, K. R., 52 Metcalf Road, Ashford, Middlesex.
 1959 Jones, R., Box 240, Port Lincoln 5606, South Australia.
 1956 Jordan, J. W., 35 Pine Grove, Maidstone, Kent.
 1922 *Joy, Mrs. A. E. C. (Warner), Cleeve Cottage, Brasted, Chart, Nr. Westerham, Kent.
 1937 *Joy, C. A., 1 Doyne Road, Branksome, Parkstone, Poole, Dorset.
 1946 Joy, G. S., Emmetts Lodge, Ide Hill, Sevenoaks Kent, TN14 6AY.
 1967 Keevil, A., 1 Station Cottage, Town Road, Rotherfield, Sussex TN6 3QS.
 1935 Kennelly, A. G., 80 Ravenswood Road, St. Clair, Dunedin, S.W.1., New Zealand.
 1964 Kilby, P., The Flat, Hoblingwell Wood Rec. Ground, Leesons Way, St. Pauls Cray, Kent.
 1957 Killick, Dr. D. J. B., Bot. Res. Inst., Private Bag x101, Pretoria, S.A.
 1976 King, R. W., "Kuranda", Northfield Road, Weybridge, Surrey.
 1929 †*Knight, F. P., 88 Lower Guildford Road, Knaphill, Surrey.
 1943 *Knight, Miss K. M., Boundary Nurseries, Hillingdon Heath, Middlesex.
 1946 *Kruger, H. J., S., Suffryn Gardens, Glamorgan, Wales.
 1937 *Langham, H. G., N.D.H., F.L.S., Orchard Heights, Green Lane, Churt, Surrey
 1924 †*Lawrence, W. J. C., O.B.E., 5 Rabling Road, Swanage, Dorset.
 1941 *Lawson, J., B.E.M., 38 Hoyle Street, Morwell, Victoria, Australia.
 1977 Leche, Miss E. A., 1 Cadogan Court, Draycott Avenue, London SW3 3BX.
 1969 Lee, Miss S., (See Mrs. Tuck).
 1922 *Lees, Mrs. S. T. (Burrell), Woodmans, Burwash, Sussex.
 1937 *Leith, G. J., Flat 1, The Library, Rose Hill, Hampton, Middlesex.
 1971 Leppard, M. J., Nat. Botanic Garden, Box 8100, Causeway, Salisbury, Rhodesia.
 1945 *Letch, Mrs. A. J., (Evans), The Old School, Bradwell, Nr. Braintree, Essex.
 1941 *Lewis, J., 156 Guppy Road, Taradale, Napier, New Zealand.
 1957 *Lewis, J., 23 The Avenue, Kew Gardnes, Richmond, Surrey.
 1964 Lewis, W., 69 Somerford Road, Parkfield Estate, Broughton, Chester CH4 0SY.
 1948 Lingard, H. M., Ashridge Cottage, Berkhamstead, Herts.
 1948 Lockley, R. E., 20 Heather Close, Thurston, Nr. Bury St. Edmunds, Suffolk.
 1940 *Lothian, T., R.N., O.B.E., B.G., Adelaide, 500-S. Australia.

- 1961 Lowe, B. E., 28 Tindall Close, Harold Wood, Romford, Essex.
 1961 Low, J. J. D., 11 May Avenue, Napier, New Zealand.
 1960 Lycett, K. M., 65 Rochester Drive, Westcliff-on-Sea, Essex.
 1966 Lycett, R. E., 86 Hall Street, Cambridge, New Zealand.
 1973 Macdonald, E. W., 7 Mortlake Road, Kew, Richmond, Surrey.
 1938 *Mackanness, F. G., Rt 1 Box 225, Troutdale, Oregon 97060, U.S.A.
 1942 Mackinnon, F. H., 74 Grantham Road, London, S.W.9.
 1936 McCormack, P. F., 44 Maes Cantaba, Ruthin, Clwyd, North Wales.
 1957 McCracken, J. S., 69 Somerville Way, Prebendal Farm Estate, Oxford Road.
 Aylesbury, Bucks.
 1944 *McCulloch, Mrs. E. (Thompson), 117 Edgworth David Avenue, Gwahroonda.
 N.S.W., Australia.
 1951 McGuffog, D. S., Chief Rec. Officer, Tunbridge Wells B. Council, Town Hall.
 Tunbridge Wells, Kent.
 1966 McLaughlin, O. D., "Landmark", Jenningsland, Smith Parish, Bermuda.
 1924 *McPherson, J. A., S. of Parks, Auckland, New Zealand.
 1919 *Madan, Miss H. P. (See Mrs. Wood).
 1963 Maddox, J. A., 11 Arnold Close, Luton, Beds.
 1938 Mansell, P. W., 55 Warren Road, Banstead, Surrey.
 1970 Marchant, C. D., 3071 West 28th Avenue, Vancouver, 8, British Columbia.
 Canada.
 1942 *Martin, Mrs. C. O., J.P., (Miss C. O. Bell), 55 Old Castle Road, Weymouth
 1919 *Mash, Miss J. (See Mrs. Flack).
 1962 Matthews, T., J.P., Council Offices, Blaydon-on-Tyne, Co. Durham.
 1954 Maunder, P., 89 East Lodge Park, Farlington, Portsmouth.
 1948 Medcalf, J. G., Holly Lodge, 165 Hill Lane, Southampton, Hants.
 1950 Melles, A. M., 8 Church Street, Madeley, Dawley, Shropshire.
 1952 Mellors, G., 13 St. George Street, Hanover Square, London, W.1.
 1968 Melville, R., 121 Mortlake Road, Kew, Richmond, Surrey.
 1969 Metcalfe, Dr. C. R., OBE., MA, PhD, FIBiol, 35 Pensford Avenue, Kew.
 Richmond, Surrey.
 1946 Middleton, J., 20 Belton Gardens, Leigh-on-Sea, Essex.
 1942 Milburn, Miss P. M. K. (See Mrs. F. Brooks Purchas).
 1957 Millard, R., Aylesbury College for Further Education, Hampden Hall, Stoke
 Mandeville, Bucks.
 1968 Miller, D. H., 81b Blatchington Road, Hove, 3, Sussex.
 1945 Miller, Miss E. M., Periton Farm House, Muirhead, Somerset.
 1971 †Milne-Redhead, E. W. B. H., "Parkers", 43 Bear Street, Nayland, Colchester.
 Essex, CO6 4HX.
 1947 Mitchelmore, C. J., Flintshire College of Horticulture, Northrop, Nr. Mold,
 CH7 6AA, Flintshire.
 1956 Moore, D. J., P.O. Box 108, Hamilton, Bermuda.
 1973 Morgan, G., Vine Cottage, Newtown, Kingbury Episcopi, Martock, Somerset.
 TA12 6BQ.
 1975 Mowforth, J. B., Brier Lea, Woodlands Triangle, Halifax.
 1937 Mowforth, R. K., Crantock, Stafford Road, Penkridge, Stafford.
 1946 Moss-Holland, Miss E. (See Mrs. E. M. Wakefield).
 1973 Mugford, A. J., 14 Richmond Drive, Rayleigh, Essex.
 1934 Mullins, A. T., 4 Elms Paddock, Little Stretton, Church Stretton, Salop
 SY6 6RD.
 1967 Nash, B. A., The Stable Flats, Petersfield Road, Havant, Portsmouth, Hants.
 1902 *Navel, H. D., Jardin Botanique, Metz, France.
 1951 Naylor, G. T., Whitehouse, Hydraseeders Ltd., Coxbench, Derby, DE2 5BH.
 1967 Nau, Miss J. (See Mrs. Scarf).
 1957 Neighbour, E. C., 3 Birchside Avenue, Glossop, Derbyshire.
 1928 *Nelmes, W., M.B.E., Willowfield, Upper Common, Aylburton, Lydney, Glos.
 1946 *Nelson, Mrs J. (Helmsing), The Lodge, Acton Park, The Vale, Acton, Middx.
 1924 *Newman, C. A. S., Clovelly Cottage, Lampton Road, Hounslow, Middlesex.
 1950 Newton, Miss D. M., (See Mrs. Pringle).
 1958 Nicholson, Mrs. R. A., (Floyer), P.O. Box 259, Mbeya, Tanzania.

- 1925 *Nisbett, E. L., Dazell Village Way, Little Chalfont, Amersham, Bucks.
 1946 *Norris, J. L., 19 Montrose Avenue, Whitton, Twickenham, Middlesex.
 1948 North, F. G., 139 Mildmay Road, Stevenage, Herts.
 1969 Norton, M. R., Green Hills, Ansford Hill, Castle Cary, Somerset.
 1969 Oliver, E. G. H., Private Bag X101, Pretoria 0001, South Africa.
 Staff Ovenden, S. F.
 1965 Overland, F. A., 18 Ennerdale Drive, Frodsham, Warrington, Cheshire.
 1952 Parker, H., Cwmdonkin Park House, 70 Penlan Crescent, Uplands, Swansea, Glamorgan.
 1959 Parkin, Miss M. E., Greenhouse Supervisor, Wascana Centre Authority, Regina, Saskatchewan, Canada.
 1971 Parkinson, W., The Lodge, Crematorium, Benhall Mill Road, Tunbridge Wells, Kent TN2 5JH.
 1949 *Parsons, C. R., The Holding, Shrimpney, Nr. Bognor Regis, Sussex.
 1958 Paterson, A. P., Chelsea Physic Gdn., 66 Royal Hospital Rd., London S.W.3.
 Staff Pattison, G.
 1973 Paterson, R. A., The Cottage, Currabinny, Carrigaline, Co. Cork, Eire.
 1964 Pead, C. B., 41 Osborne Avenue, Staines, Middlesex.
 1933 *Pearce, W., Pound Farm, Brockmanton, Nr. Leominster, Herefordshire.
 1975 Pearson, K., The Rectory, Hemington, Peterborough.
 1965 Pearson, K. F., 24 Lamberts Croft, Green Leys, Wolverton, Milton Keynes, MK12 6AS.
 1967 Penberthy, B., 15 Atlantic Terrace, Camborne, Cornwall.
 1974 Perham, D. R., Prospect Estates, Tortula, Virgin Isles, B.W. Indies.
 1950 Perkins, B. L., P.O. Box 84807, Mombasa, Kenya.
 1940 *Pettigrew, Capt. A. H., Guarlford Court, Nr. Malvern, Worcs.
 1974 Philibert, L., 36 Palace Green, Addington, London, CR0 9AG.
 1972 Phillips, B., P.O. Box 834, Hamilton, Bermuda.
 1972 Phillips, Mrs. S. M., In den Mullern 2, 7800 Freiburg-Tiengen, West Germany.
 1960 Pitcher, B. F., 11 Crestbrook Place, Green Lanes, Palmers Green, London N13 5SB.
 1964 Popham, C.
 1964 Popham, Mrs. J. A., (Miss Hyde Trutch),
 1930 *Porter, W., 30 Rockstone Road, Bassett, Southampton.
 1928 *Poulter, C. G. W., 22 Burnside Row, Kirkmichael, Ayrshire.
 1958 Powell, C. U., Dolphin Cottage, 17 Police Station Road, Horsham, Sussex.
 1957 Powell, M. C., B.Sc., Ph.D., 16 Walstenbury Road, Rustington, Sussex.
 1972 Preston, G. H., 251 Hinton Way, Great Shelford, Cambridge, Cambs., CB2 5AN.
 1962 Preston, W. T., April Cottage, Walmer Gardens, Ealing, W.13.
 1949 Price, J., "Greenbank," Sully Road, Penarth, Glam. CF6 2TZ.
 1967 Pring, Miss G. M., 24 Shaftesbury Road, Richmond, Surrey.
 1956 Pringle, Mrs D. (Miss D. M. Newton), 90 Godmans Lane, Marks Tey, Colchester, Essex.
 1937 † *Prockter, N. J., 110 Malthouse Rd., Southgate, Crawley, Sussex RH10 6BH.
 1946 Puddle, C. E., M.B.E., Bodnant Cottage, Tal-y-Cafn, Denbighshire, Wales.
 Pusey, W., Bedford Parks Department, Bedfordshire.
 1944 Pymont, E. W., 2 Dalebrook, Gorsley, Ross-on-Wye, Herefordshire.
 1962 Rainey, J., 33 Diamond Gardens, Finaghy, Belfast.
 1963 Ralston, D., Castle Harbour Hotel, Bermuda.
 1925 Ransom, D. H., Ransom & Son, Ransom's Gdn. Centre, Faldovet-Gorey, Jersey.
 1959 Ransom, D. P., ditto.
 1951 Rattenbury, H. C. P., 36 Bodiam Road, Ipswich, Suffolk.
 1951 Ravenscroft, A., Parks Dept., Municipal Offices, Harrogate, Yorks.
 1972 *Rawlings, S. W., 189 Castle Lane West, Bournemouth, BH9 3LD.
 1941 *Redman, J., Royal Bot. Gdns., Box 399, Hamilton Ontario.
 1931 *Richardson, L. A., Garden Craft Nursery, 134 Hector Street, Osborne Park, 6017, Western Australia.

- 1956 Rippon, A. V., 567 Moore Road, Durban, South Africa.
 1958 Risley, T. F., P.O. Box 5353, Sharjah, United Arab Emirates.
 1975 Robbins, S., Burn Valley Lodge, Elwick Road, Hartlepool, Cleveland.
 1954 Roberts, M. S. F., 18 Bellmount Wood Avenue, Watford, WD1 5BW.
 1965 Robinson, K., 12 Blairmore Drive, Deane, Bolton, Lancs.
 1962 Robson, N. K. B., c/o Brit. Mus. Bot. Dept., Cromwell Road, S.W.7.
 1948 Roddick, P. W., 44 Davids Drive, Wingerworth, Derbyshire.
 1948 Rolls, E. V. H., "Hillside", Sutton Hill, Bishop Sutton, Bristol, Avon B518 4UN.
 1939 *Ronco, L., Bordighera Piani, Borghetto, Italy.
 1958 Rooke, I. G., 97 Grove, Road, Rayleigh, Essex.
 1965 Roome, C. S., 140 Willow Tree Lane, Yeading, Hayes, Middlesex.
 *Ross-Craig, Miss S., (Mrs. J. R. Sealy), 15 Grosvenor Road, Richmond, Sy.
 1934 *Rose, W. A., Colonial Research Inst. Freeport, Grand Bahama, Bahamas.
 1930 *Rudd, C. W., 7 Crescent Rise, Wood Green, N.22.
 1922 *Rudolf, Miss O. (See Mrs. Davis).
 1932 *Rumsey, R. H., Old Northern Road, P.O. Box 1, Dural, N.S.W. 2158, Australia.
 1967 Russell, T. A., Greenside, Kirk Yetholm, Kelso, Roxburghshire.
 1928 *Rutter, W. G., 144 Green Meadow Road, Birmingham 29.
 1957 Ryder, F. P., Parks Dept., Cyfartha Park, Merthyr Tydfil, Glamorganshire.
 1976 Sadler, J., 28 St. Mark's Road, Hanwell, London, W.7.
 1958 Sales, J., Ledwell Lodge, 4 Burford Road, Cirencester, Glos.
 1957 † *Salisbury, Sir Ed., C.B.E., D.Sc., F.R.S., Croindere, Strandway, Felpham, Bognor Regis, Sussex.
 1912 † *Sargeant, T., 25 Cale Road, Haywards Heath, Sussex.
 1972 Savage, T., 12 Fifth Avenue, Burnley, Lancs.
 1923 Saville, D., 6 Ennerdale Road, Kew Gardens, Richmond, Surrey.
 1977 Sawyer, D. J., 4 Moorfield Avenue, Ealing, London W.5.
 1924 *Sayer, H. W., 17 Landcross Drive, Abington Vale, Northampton.
 1962 Sayers, C. D., c/o Landscape Dept. Development Corporation, Peterborough.
 1940 Sayers, D. W., 94 Potters Lane, Burgess Hill, Sussex.
 1967 Scarr, E. D., Parks, Recreation and Beaches Dept., Durban, Natal, South Africa.
 1945 Scott, Miss C. (See Mrs. Bundy).
 1955 Seager, T. J., Alexandra Park, Oldham, Lancashire.
 1967 *Sealy, J. R., 15 Grosvenor Road, Richmond, Surrey.
 *Sealey, Mrs. J. R., (See Miss S. Ross-Craig), ditto.
 1949 *Senogles, F., David's Well, Westcot Lane, Sparshott, Wantage, OX12 9PZ.
 1944 *Sharps, Miss F. A. (See Mrs. Ashby).
 1949 Sharps, Miss J. (See Mrs. Hingston).
 1938 Shaw, F., 12 Warren Road, Cambs. CB4 1LL.
 1972 Shaw, R., 49 Deanburn Road, Linlithgow, W. Lothian.
 1957 Shea, J. O., 2 Ferring Close, South Harrow, Harrow, Middlesex.
 1940 *Short, J. G., Curator, Victoria University, Wellington, New Zealand.
 1970 Sinnott, N. H., 45 Lincoln Road, Essendon, Victoria 3040, Australia.
 1968 Skan, Miss M. I., M.B.E., 147 Litchfield Crt., Sheen Rd., Richmond, Surrey, TW9 1AY.
 1948 *Slade, W. J., Napsbury Hospital, Nr. St. Albans, Herts. (North Lodge).
 1929 Slinger, L., The Slieve Donald Nursery Co., Newcastle, Co. Down, N. Ireland
 1967 Smith, A. R., 71 Kenswick Drive, Halesowen, West Midlands B63 4QY.
 Staff Smith, Miss E. H.
 1959 Smith, G. D., 182 Floreston Road, Mondeor, Johannesburg, S.A. 2001.
 1977 Smith, M. T., 23 Kingsley Avenue, Rhyl, N. Wales.
 1971 Smith J. A.
 1930 *Smith, J., F.Z.S., Braemar Street End, Canterbury, Kent.
 Smith, K., 6 Orchard Way, Eastchurch, Isle of Sheppey, Kent.
 1949 Smith, W. S., Flat 1, White House, Canal Gardens, Leeds LS8 1DQ.
 1977 Sobel, Miss G. L., 6 Theodore Drive, Plain View, Long Island, N.Y. 11803, U.S.A.

- 1964 *Souster, J. E. S., c/o The Old Vicarage, Moulsoford, Wallingford, Berkshire.
 1945 *Souster, Mrs. (Miss R. M. Ambrose), 27 Holmlea, Goring-on-Thames, Reading.
 1919 *Sparrow, Sqd. Ldr., Retrd., J.W., M.M., 7 Potts House, Great Milton, Oxford
 1964 Spate, G., 13 Etta's Way, Etwall, Derby.
 1977 Spicer, Miss M. C., 2 Princes Court, 68 Pilgrims Lane, London N.W.3.
 1946 Sprague, Mrs. T. A., B.A., F.L.S., 7 Hatherley Road, Cheltenham, Glos.
 1945 *Stent, Miss H. J. (See Mrs. Albert).
 1970 Stevens, A. D., 3 Taylor Avenue, Kew Gardens, Richmond, Surrey.
 1968 Stevens, Miss E., 3 Welldiggers, New Pond Road, Compton, Guildford, GU3 1HU.
 1972 Stevenson, Miss J., 5 High Path, Pattingham, Nr. Wolverhampton, Staffs.
 1908 *Stirling, E., Danelachan, Colliston, Nr. Arbroath, Scotland.
 1927 † Stock, C. R., 14 The Mead, Beckenham, Kent, BR3 2PE.
 1950 Stone, G. E., "Amberley", Kenton, Exeter, Devon.
 1932 Stonebridge, G. W., 24 Walterbush Road, Chipping Norton, Oxon.
 1952 Storey, W. E., 88 Latchmere Road, Kingston, Surrey.
 1958 Strabel, J. F., 20 Barberry Road, Penarth, South Glamorgan, Wales.
 1977 Strudwick, J. J., 2 Links Avenue, Gidea Park, Romford, Essex RMZ 6NB.
 1930 Studley, E. W., 60 Southbrook Road, Langstone, Havant, Hants.
 1969 Styles, P., 109 Colwyn, Treowen, Newtown, Powys, Wales.
 1969 Summerwell, P. C., The Bungalow, St. Bridget Nurseries, Old Rydon Lane, Exeter, Devon EX2 2TY.
 1958 Sutcliffe, T., Weatherham, Brompton Regis, Dulverton, Somerset.
 1937 Swift, H. W., 11492 SW 190 Terrace Road, Miami, Florida, 33157, U.S.A.
 1920 *Syer, F. G., 90 Cromwell Avenue, Cheshunt, Herts.
 1962 Taber, D. W., 99 Holmwood Road, Cheam, Surrey.
 1939 Taylor, G. E., 244 Sandycombe Road, Kew Gardens, Surrey.
 1971 Taylor, Sir George, Belhaven House, Dunbar, East Lothian.
 1933 *Taylor, Hubert, M.B.E. 8 Cotterill Road, Surbiton, Surrey.
 1961 Taylor, Miss J. L. (See Mrs B. Humphrey).
 1950 Thomas, L., 1 Recreation Ground, Beaufort, Ebbw Vale, Gwent.
 1944 *Thompson, Miss E. K.G., (See Mrs. McCulloch).
 1968 Tietze, Miss P., (See Mrs. P. C. Barker).
 1915 Timmers, A., "Brambles", Hailey Witney, Oxon.
 1946 Tindall, H. D., M.B.E., c/o National College of Agric. Engineering, Silsoe, Bedfordshire.
 1960 Toft, K. G., "Woodavens", 9 Ash Lane, Freeland, Oxford.
 Townsend, D. H. W.
 1959 Tomlinson, M. J., Flat 5, Ridley Court, Pound Hill, Crawley, Sussex.
 1955 Tregear, J. P., West Bank, 32 Southampton Road, Lymington, Hants., SO4 9GG.
 1927 *Trevaskis, P. S., 24 King's Road, Emerald, Victoria 3782 Australia.
 1972 Trevan, D. J., Isle of Wight College of Art and Technology, Newport, I.O.W.
 1946 Trower, Miss S., Little Crown, Ewhurst, Surrey.
 1936 *Truman Fossum, M., 1145-19th St., N.W., Suite 415, Washington, D.C., 20036, U.S.A.
 1970 Tuck, J., 155 Muirside Avenue, Kirkintilloch, Dumbartonshire.
 1969 Tuck, Mrs. J., ditto.
 1912 *Tuck, W. H., c/o Green's, Bishopsteignton, Nr. Teignmouth, Devon.
 1949 Turley, A. G., 23 St. Paul's Close, Hounslow West, Middlesex TW3 3DE.
 1949 Turley, P. G., ditto.
 1936 *Turner, J. H., "Cradock", 70 Fairfield Rd., Winchester, Hants. SO22 6SG.
 1963 Tyas, M., 1 The Lodge, Overbury, Tewkesbury, Glos.
 1934 *Vanson, G. H., The Lodge, Bradley Woods, Grimsby, Lincs.
 1920 *Vardy, M., "Sandhill", Middleton Lane, Middleton St. George, Darlington, Co. Durham.
 1966 Waddell, D., The Bungalow, Elmwood College, Cupar, Fife, KY15 4HY.
 1946 Wakefield, Mrs. E. M. (Miss Moss-Holland), 5 Ritchie Place, Edinburgh.
 1934 Walby, A. P. S., Cutteslowe Park, Summertown, Oxford.

- 1937 Walker, W. F., Chief Hort., Dept. of Agric., G.P.O. Box 192B, Hobart, Tasmania.
- 1928 *Wallace, Mrs. G. B., (Duke), M.Sc., 31 Dukehaugh, Peebles, Peebleshire.
- 1944 Waller, Mrs H. (Shallcross), Burnt House Farm, Chartham, Nr. Canterbury, Kent.
- 1921 *Walters, E. A., Northwood, Presteigne, Powys, Wales, LD8 2NH.
- 1947 Ward, J. S., 41 Dartmouth Avenue, Low Fell, Gateshead, Tyne & Wear, NE9 6XA.
- 1963 Ward, R. C., 8 Mortlake Road, Kew, Richmond, Surrey.
- 1922 *Warner, Miss Audrey (See Mrs. Joy).
- 1937 Wass, B. B., 87 Berkeley Avenue, Reading, Berkshire, RHL 6HS.
- 1937 *Watson, D. P.,
- 1923 *Watson, J. W., A.H.R.H.S., 14 Hollywell Road, Aylestone, Leicester.
- 1971 Watts, G. R., 124 Ingrave Road, Brentwood, Essex
- 1948 Waumsley, N., 25 Manor Gardens, Shepshed, Loughborough, Leics.
- 1908 *Weber, A. Neidershausen, Oberlahnkries, Germany.
- 1968 Webster, A., 2 Halstead Walk, Allington Farm Estate, Maidstone, Kent.
- 1946 *Wells, Miss L. M., (See Mrs. Wren).
- 1948 *Weston, Miss P., (See Mrs. Himson).
- 1911 *White, A. H. J., Elloughton Road, Brough, East Yorkshire.
- 1949 Wharton, K., 13 Manor Road, Off Dewsbury Road, Wakefield, Yorkshire.
- 1972 Whitehead, M. J., Merrits Wood Agric. Coll., Worplesdon, Guildford, Surrey
- 1969 Wickham, R., The Gardens, Bridgetown, Co. Wexford.
- 1955 Wilkinson, L., Firestone Plantations Coy., Harbel, Liberia, West Africa.
- 1971 Wilkinson, M., 53 Rosslyn Avenue, Barnes, London, S.W.13.
- 1937 Williams, R. F., Westmead, Kingsland, Nr. Leominster, Herefordshire.
- 1974 Williamson, P. J., 61b Highfield Road, Kettering, Northants.
- 1947 Wilmott, C. J., Dene Lodge, Saltwell Park, Gateshead 8, Co. Durham.
- 1936 Wilson, A. S., 24 Vahland Avenue, Riverton, Western Australia.
- 1966 Wilson, P. E., 140 Oswald, Courtwood Lane, Croydon, CRO 9HE.
- 1972 Wilton, S. A., 1b Priory Road, Kew, Richmond, Surrey.
- 1925 *Wiltshire, T. W., 48 Nant Fawr Road, Cyncoed, Cardiff, Wales.
- 1975 Wiseman, R., 20 Linden Road, Runwell, Wickford, Essex.
- 1919 *Wood, Mrs. H. P. (Madan), Ladywell House, Vowchurch, Hereford.
- 1960 Wood, A. T., Hoads Cottage, Potters Corner, Ashford, Kent.
- 1970 Wood, G. P., 49 Egerton Rd., Davenport, Stockport, Cheshire, SK3 8TQ.
- 1950 *Wood, P. L. D., c/o Box 189, Salisbury, Rhodesia.
- 1947 Woodward, A., 275 Tudor Drive, Kingston upon Thames, Surrey.
- 1963 Woolliams, K. R., Waimea Arboretum, 59-864 Kamehameha Highway, Haleiwa, Hawaii, 96712.
- 1937 Wray, E. C., 33 Alexandra Road, Watford, Herts.
- 1948 Wray, E. V., Selwood, 14 Church Lane, Humberstone, Nr. Grimsby, South Humberside.
- 1946 *Wren, Mrs. L. M. (Wells), Park Farm House, Saint Margarets, Nr. Vowchurch, Hereford, HR2 0QW.
- 1939 *Wyndham, G. T. F., Perceval Lodge, Mattock Lane, Ealing, London, W.5.
- 1926 *Yashiroda, K., Tonosho-kyokyu, Kagawa-ken, Japan.
- 1968 Yong Fann Chin, The Istana, Singapore, Malaysia.
- 1948 Young, P., The Lodge, Cheam Park, Cheam, Surrey.
- 1933 *Younger, R. W., Cherith, 15 Brook Lane, Stretham, Ely, Cambs. CB6 3JU.
- 1915 *Yuill, E., 35 Askham Lane, Acomb, York.
- 1939 *Ziedenburg, D. C., "Mikveh Israel", Poste-Holon, Israel.
- 1931 *Zwicky-Waber, K., Sonneblume, Hunibach, Nr. Thun, Switzerland.

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1965	Akance, L. A.	1905	Ing, W. J.
	Anderson, J. W.	1947	James, K. H.
1954	Ashley, R. F.	1949	Lavender, F. R.
1963	Barwani, M. R.	1931	*Lee, L. A.
1953	Bentham, H.	1954	Maunder, P.
1958	Bingham, C. A.	1974	Marsland, A. B.
1959	Bird S. F.	1934	Martin, L. P.
1945	Blowers, J. W.	1959	Mason, J. D.
1956	Boulton, J. B.	1954	Massey, A.
1947	Bourner, E.	1949	May, C. J.
1951	Brooks, V.	1976	McCormack, Miss C.
1943	Brown J.	1969	McKarry, B. G.
1951	Brown, J.	1942	Melville Towers, Mrs. Lismore (Miss E. Plummer)
1913	*Candler, S. R.,	1971	Miller, B. C. B.
1976	Carrington, R. C.	1963	Mitchell, A. J.
1949	Child, R. F.	1933	Mould, A.
1945	*Clarke, P.	1969	Norwood, D. A.
1971	Cole, G.	1952	Parker, F.
1962	Cook, G. A.	1964	Popham, C.
1915	Coombes, G.	1949	Price, J.
1925	Cooper, E. C. W.	1940	Prior, M. C.
1936	Cross, G. H.	1976	Reeves, C.
1959	Crossman, J. H.	1934	Robinson, H. P.
1948	Dayson, F. G.	1970	Sawyer, C. F.
1964	Deans, R. F.	1967	Saxon, E.
1965	Duncan, C. M., N.D.H.	1923	Semple, J. A.
1959	Dunnenberger, W.	1939	Sheat, W. G.
1927	*Elson, A. S.	1969	Shorey, M. J.
1932	English, R. J.	1937	Simmonds, F. L.
1969	Esmonde, A. J. G.	1953	Smith, I. L.
1971	Everett, Mrs. E. J.		Smith, K.
1945	*Everett, W. E.	1934	*Stanley, M.
1945	*Farmer, Mrs. W. O. (Miss J. M. Thompson).	1948	Stevenson, Mrs. E.
1942	Flew, Miss M. G.	1908	Stirling, E.
1972	Gilbert, T. E.	1967	Tennant, J. R.
1934	*Ginkel, C. van	1913	*Tindall, H. B. A.
1967	Goddard, H. N.	1967	Vivian, A.
1966	Gordon, C. E. B.	1948	*Ward, O. J.
1972	Harris, J.	1908	Weber, A.
1925	Hayes, T. R.	1943	Werner, H. F.
1971	Haywood, L.	1968	Wheatley, E. G.
1956	Hind, H.	1935	Wheeler, G. F.
1968	Hindmarch, C.	1959	Willis, J. H.
1934	Hoogstad, B. M. E.	1959	Willoughby, B. J.
1971	Hunt, P. F.	1972	Wilton, S. A.
1912	Illman, G. E.	1950	Wood, P. L. D.

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