

The Journal of the Kew Guild

EVENTS OF 1969

(Published in 1970)



Founded 1892

Volume VIII

No. LXXIV

(With Special Supplement)

THE
JOURNAL
OF THE
KEW GUILD

*AN ASSOCIATION OF MEMBERS OF THE KEW STAFF
PAST AND PRESENT*

FOUNDED 1892

EVENTS OF 1969

(Published April 1970)

Volume VIII

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ROYAL BOTANIC GARDENS
KEW

Trustees: Sir GEORGE TAYLOR, D.Sc., F.R.S., F.R.S.E., F.L.S., V.M.H.
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OUR PRESIDENT'S CHALLENGE FOR THE 1970's

I suppose uppermost in the minds of most Kewites there is the resolve to attend a Kew Dinner. Some living near London are able to attend regularly with little or no inconvenience and also take part in the Annual General Meeting in the Autumn.

I appreciate that to many this is a desire which can be fulfilled less frequently by reason of distance, while to those whose lot is cast in far away countries they can perhaps achieve but one such visit in a life-time. As one who has been fortunate in being able to attend Kew Guild functions regularly and share in a fellowship highly prized amongst us, I have given some considerable thought to possibilities of overcoming this problem.

Of the many interesting items which appear annually in the *Journal* I believe that relating to meetings of Kewites in various parts of the world attracts foremost attention with its readers. Could we not widen the scope of such meetings, not only overseas but at home ?

With regard to Associations of Kew Guild Members abroad I have asked the Editor if it is possible to insert in a prominent position in the *Journal* items of news concerning them, such as dates of meetings, etc., and in particular names and addresses of their Chairman and Secretary, or Kewites who act as Convener or Liaison Member. To this suggestion the Editor has kindly agreed. Can I hope for an increase in the number of such Associations overseas ?

At home I see no reason why meetings of Kewites should be confined to the Dinner and Annual General Meeting held in London. Why cannot meetings be arranged in other parts of Britain, perhaps in the North or West when one of the large provincial horticultural shows is being held. Could this be arranged as a Luncheon or Dinner Meeting ? Why not ? I believe there is a great potential for gatherings of this nature.

If such meetings take place during my year of office as President I will gladly do my best to be present, and regret that it would be difficult to extend such visits outside the British Isles.

I am sure the desire for such meetings is present wherever Kewites are situated—can we make a little effort and put it into action ?

C. R. STOCK, *President*, 1969/70.

CHARLES ROBERT STOCK

President, 1969/70

Charles R. Stock was born at Iver, Buckinghamshire, in February, 1904, and commenced his career in horticulture at Iver Place, Bucks—better known now as “The Coppins”, the home of the Duke and Duchess of Kent. He stayed at Iver Place some five years gaining experience in a valuable training ground under the late Mr. R. Bladon. This was followed by a further two years at Denham Court, near Uxbridge.

He entered Kew in April, 1925, and left in November, 1927. He first served in the Tropical Department, then in the Palm House and T Range—before being transferred to the Aboretum. During his time at Kew he took full advantage of the courses of study and also attended the land surveying classes at the Richmond Technical Institute. He took an active interest in the social activities at Kew, being Secretary of the Cricket Club in 1927, which was perhaps the most successful year the Club has enjoyed.

From Kew he obtained an appointment with the Dartington Hall Estates, Totnes, Devon, being primarily engaged in the development of an extensive tree and shrub nursery. In 1929 he joined the Torquay Parks Department under an Old Kewite, the late Mr. F. G. Cousins. After three-and-a-half years, mainly engaged on landscape work, Mr. Stock proceeded to the Ealing Parks Department, where he was responsible for a considerable area devoted to sports. In January, 1935, he took up an appointment with the Hornsey Borough Council as its first Parks Superintendent, and was called upon to reorganise the departmental administration.

During 1939 he was appointed Parks Superintendent to the Borough of Beckenham as its first designated Chief Officer, responsible for the Parks Department at the time of its separation from the Borough Engineer's Department. Taking up his duties in April, the outbreak of the Second World War a few months later meant the deferment of Parks development, and the efforts of the Department were devoted to all-out food production. Mr. Stock was also responsible for furniture salvage in this badly bombed area, and was attached to the Rescue Service as Engineering Officer.

At the conclusion of hostilities he prepared an extensive post-war development programme which included much needed sports facilities, the extension of horticultural features, and the lay-out of several new parks. He was one of the pioneers in the development of the Playleadership scheme.

In 1964 our President was appointed Director of Parks to the Borough of Bromley, when this came into being as a result of the Greater London Act. Included were the former boroughs of Beckenham and Bromley, and the urban Districts of Orpington and Penge, with the Chislehurst area of the Chislehurst and Sidcup U.D.C. Thus it became one of the largest Parks Departments in the country. He retired in February, 1969.

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CHARLES ROBERT STOCK,
President 1969/70



WILLIAM HOWELL,
Vice-President 1969/71

WILLIAM HOWELL
Vice-President 1969-1971

William Howell, now in his seventy-first year, was the sixth child of a wheelwright. He was born in the village of Dersingham, near Sandringham, Norfolk. He commenced work at the Royal Gardens, Sandringham, in 1913, when the late T. H. Cook was Head Gardener. P. W. Woodhouse and C. E. Hubbard (later Dr.) joined the staff before Howell was called up for military service in May, 1917. Posted to the King's Royal Rifle Corps he took part in the "Big Push" in March, 1918, and later served with the Army of Occupation. He was then sent to Egypt to join an Indian Division on a tour of duty in the Taurus Mountains. Returning to Cairo, William attended a course of horticulture at Giza-Orman Botanic Gardens. Among the instructors were four Old Kewites—N. E. Brown, Director, H. Chapman, G. Crouch and F. Walsingham. A further period of two years at Sandringham followed demobilisation.

William entered Kew in April, 1922, and one of his most pleasant memories is of sharing "digs" with Jock Anderson and Frank Knight, the commencement of a long and happy friendship.

From Kew, Howell moved to Glasgow Botanic Gardens where the late G. Banks, an Old Kewite, was then Curator. A period at Garston Manor, near Watford, followed, where he was a General Foreman under another Old Kewite, E. Baker. His first and only post as Head Gardener was at Stonelands in Dawlish, where he assisted the late Walter Ingerwersen in building a rock garden on the banks of a lively stream.

Attracted by the better prospects which existed in public parks he joined the Department of Cambridge Corporation as Propagator. In 1932 he was appointed as Foreman in Kelsey Park with Beckenham Council. In this beautiful and formerly privately-owned park, with lakes and magnificent old trees, he had the happy task of adding to a notable collection of trees and shrubs. Promotion to Senior Foreman followed, and he had his first direct association with constructing a bowling green, an experience, which combined with an enthusiasm for grasses, led to his specialisation in matters of turf management.

Following the appointment of C. R. Stock (President, 1969/70) as Parks Superintendent at Beckenham, Howell was promoted as Assistant Superintendent and was subsequently designated as Deputy Parks Superintendent.

Upon the outbreak of World War 2 he was immediately involved with the Civil Defence, and it was not until 1941 that he returned to parks where he was involved with the "Dig for Victory" campaign.

With the return of peace the long struggle to reinstate the old parks and develop new ones took a considerable amount of our Vice-President's time, but he managed to contribute regularly to technical journals on the many aspects of turf management. He was also in demand as a lecturer. Specialising on turf, he gave

instruction to students at the College of Park Administration, and continues to give courses of lectures on Lawn Management at Wisley and in Technical Colleges in Kent and Sussex.

In 1953 William was awarded the Prize Memorial Cup for outstanding services to the Beckenham Horticultural Society. He holds the Diploma of the Institute of Park Administration and is a Fellow of the Linnean Society. Following retirement in 1964, William visited New Zealand and Australia, where he engaged in plant collecting and went on tours of many parks departments and gardens. A detailed account of these visits is given in his article "A visit to Kewites Down Under" published on pages 542-3, *K.G.J.* 1965. An account of his travels has also appeared in serialised form in the *Journal of Park Administration*.

Moving to Polegate, William completed the writing of his book, *Bowling Greens, Construction and Maintenance*. Please see page 976.

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Mr. Stock is a well-known member of the Institute of Park and Recreation Administration, being elected President for the year 1958-59. He served on the council of that organisation continuously from 1936 to 1960. He was Secretary of the London Branch from 1936 to 1945, when he was elected Honorary Treasurer of the Institute, a position he held for seven years. He was Chairman of the International Congress Committee responsible for the arrangements of the 1st International Congress on Public Park Administration, held in London in 1957, and Chairman of the Committee for the Conference held at Liverpool in 1958. He represented the Institute on the British Standards Institute for Playground equipment, and serves on the National Playing Fields Association Special Committee for Playleadership and Children's Playgrounds.

The President was one of the prime movers in the formation of the South-Eastern and Eastern branches of the Institute, and took a leading part in the re-formation of the former after its decline during the war years, and was elected Chairman in 1955-56. He is a Trustee of the Headquarters of the Institute of Park and Recreation Administration and the College of Training.

Mr. Stock is Warden Emeritus of Christ Church, Beckenham, having served as Churchwarden for nine years, and is still an active member of the Church. He is a Past President of the Rotary Club of Beckenham and was District Governor for District 112 (Kent, and East Sussex) in 1963-64. He is still actively engaged in Rotary affairs.

As President of the Institute of Park and Recreation Administration he visited public parks in France, Germany and Switzerland in 1959, and visited parks and gardens in America in 1963. He was thus able to meet Old Kewites who were contemporary with him at Kew. Our President served on the Guild Committee from 1941 to 1944 and again from 1961 to 1964.

THE ANNUAL DINNER

The Annual Dinner was held at the Chatham Restaurant, Victoria Station, on Tuesday, 20th May, 1969. Mr. E. Milne-Redhead was President and there were 120 members and guests. The meal was excellent, and consisted of Florida Cocktail; Cream of Asparagus Soup; Roast Norfolk Turkey, Chipolata, Stuffing, Bread Sauce, Croquette and Mashed Potatoes and Buttered Brussels Sprouts; Bombe Tutti Frutti; and Coffee.

Shortly after the Toast to Her Majesty, The Queen, Mr. G. E. Brown rose to propose the toast to the President. He spoke of Mr. Milne-Redhead's work at Kew, his period in the Services during the war years and of his great interest in the British Flora and in wild life generally.

The President responded, and first referred to the vase of wild flowers gathered from Kew, which had been placed on his table. This he described as "delightful". Mr. Milne-Redhead is a keen and authoritative conservationist, and it was no surprise that he dealt at length with this important subject. He described how the thriving patch of *Ranunculus auricomus* ("Goldilocks") had been preserved and encouraged in the grass behind No. 1 House. He also referred to the fine show of *Saxifraga granulata* "Meadow Saxifrage", which thrived in the grass to the left of the Main Gate, owing to this being left uncut until the daffodils die down.

The President referred to the steps which can be taken to increase the population of desirable birds in gardens and parks. He spoke of the policy of the Committee on Bird Sanctuaries in the Royal Parks of placing nesting boxes in suitable places, and to the attempts (so far unsuccessful) which have been made at Kew with tawny-owl nest boxes. This policy was, he stated, important where there was a general "cleaning up" of trees.

Mr. Milne-Redhead then spoke of one of our guests, Mr. S. A. J. Oldham, who is Director of Parks, Glasgow. He is, he stated, "a staunch supporter of nature conservation and fully realises the need to educate the public to enjoy natural things and to save (or in urban areas recreate) places where wildflowers and wildlife can be enjoyed. He has a Conservation Officer on his staff who sets up nature trails and deals with various conservation problems within the city". He continued, "Conservation is largely a question of management of vegetation and once the essential principles are grasped, it becomes a fascinating problem to apply the principles to save some particular plant or animal from destruction. Courses on nature conservation are held at several of the Field Studies centres of the Field Studies Council, and whilst few Parks Departments can do as Mr. Oldham has done, I would like to see at least one member of every department in the country attending one of these courses to obtain proficiency in nature conservation."

Mr. Milne-Redhead then referred to the Students Course—"Conservation is now part of the Diploma Course at Kew and the

management of Public Open Spaces, taking into consideration the natural history interests of these areas, is demonstrated to students in the Surrey countryside with the active co-operation of the Surrey Naturalists' Trust".

The President turned to more general subjects and spoke of the Guild and of the Guyana Expedition which it was supporting. He thanked members of the Guild for the contributions which they had made and ended — "I consider this plan to be an encouraging sign that all is well with the present generation of Kew students and that the future of the Guild is assured".

After the toast to the Kew Guild proposed by The President, the toast to our Guests was ably proposed by Mr. A. G. Burgess, a student. Rear-Admiral J. P. W. Furse, C.B., O.B.E., responded and in a lively speech he said how pleased he was, with Mr. S. A. J. Oldham, N.D.H. (the other guest), to be present.

At a word from the President the formal part of the Dinner ended, and once again members strolled in groups to the bar. It had been a good dinner, the speeches were short and to the point, and a long period was left for discussion.

PROJECTS ON DISPLAY AT THE PRIZEGIVING

M. J. Alderson ...	Light Transmission and Greenhouse shading.
A. G. Burgess ...	Commentary on some of the factors pertinent to the history and present-day existence of the British flora.
A. J. G. Esmonde	The propagating of Tomatoes for Early Production.
D. G. Evemy ...	The changing flora of a typical London Borough—London Borough of Ealing.
P. A. Goodbury ...	Glasshouse Irrigation.
S. A. Goodyear ...	Landscaping under Glass.
P. A. Ketley ...	Ficus.
C. Iles	Large Area Turf Maintenance Equipment.
J. B. Lawrence ...	Landscape Maintenance of Housing Estates.
Miss J. Lee ...	British Parasitic Plants.
R. Mann	Derelict Land.
M. R. Norton ...	Epiphytes and their cultivation.
P. E. Styles ...	Myosotis.
P. C. Charles ...	An appreciation of medicinal plants.
T. M. Taylor ...	Colchicine application and effect on plant mitosis.
J. P. R. Wickham	Attempts to induce dwarfing in Garnette Roses. Using growth retardants.

PRESENTATION OF KEW DIPLOMAS AND PRIZES

This ceremony took place on the afternoon of Thursday, 25th September, the presentations being made by the Right Honourable Cledwyn Hughes, M.P., Minister of Agriculture, Food and Fisheries.

It opened at 2 p.m. when those attending—parents, students, examiners, teaching staff and members of the Kew Staff and Old Kewites—were able to view the exhibition of students' work, which was held in the Jodrell Laboratory.

The formal part of the ceremony opened at 3 p.m. when the Director, Sir George Taylor, made a speech of introduction. During the course of this he made many interesting references to the students' course. One in particular concerned the future of the Three-Year-Course.—“Last year I mentioned also that developments following the Pilkington Report on horticultural education were being closely watched to see whether any change in the Kew Course would be necessary. It will take some time before the impact of these is fully felt. So far, I am happy to say, Kew still seems to be providing what many people want, as there is as yet no falling off in applications to come here or any indication that change is necessary. When, on taking the Directorship of Kew, I considered the future of the Kew Course, the two years' certificate course, as it then was, I felt that I had to recommend that the instruction should be framed with the Royal Horticultural Society National Diploma of Horticultural Examinations in mind. This recommendation was accepted by the Ministry and within the limits of what can be taught at Kew, has been followed ever since. It will I hope continue to be followed so long as the Society continues its present high standards, and I have no reason to believe it will be eroded. I am glad to be able to tell you that once again there are successes to be recorded in the R.H.S. Examinations. We have Mr. Esmonde, one of our present Students who has passed a Final of the N.D.H., and five have passed the Intermediate stage. Three past Kew Students have been successful in the Final N.D.H. in section 6, and we shall all wish to congratulate them on this splendid performance, because the N.D.H. is without any question the real hall-mark of a completely trained horticulturist. I have always regarded a proper use of the training potential of our large living collections as a function of very great importance in order to provide a fully rounded course of instruction. We teach many things at Kew that can be learnt equally well and even better elsewhere, but here in addition, there is an extensive range of plants which used rightly by students, can furnish a wide knowledge of the world's flora and the ways in which exotic plants can be grown successfully in a British climate. Apart from Kew, only the Royal Botanic Gardens, Edinburgh, the Cambridge Botanic Garden and the Royal Society's Horticultural Garden at Wisley provide similar work for students among collections. These other Gardens would I am sure be the first to acknowledge that the Kew collections are

more comprehensive than their own, but taken together these institutions provide something which cannot be obtained elsewhere. With changes to come it must preserve for those who want it the unique opportunities which botanic and similar gardens are for. There will always be a place for these and students who wish to take advantage of them."

The Minister who followed, made a reference in his speech to the conditions which students found in former times. Speaking of the present Three-Year-Course he continued—"Times have changed for the better. When you, Sir George, came to Kew the Student Gardeners were taught only six subjects and had to attend all the lectures in the evenings. The students must have been tired from a hard day's work in the hothouses. Worse than the House of Commons, or a hard slog in the open air, and Kew Student Gardeners have been putting up with those conditions since the Course first began over a hundred years ago in 1858. Well, those must have been a hardy race of students and it is no wonder that they made such a name for themselves in later life. I have no doubt that the present generation is as hardy as its predecessors, although the lectures now are given in the day time, certainly the students today must be stretched intellectually a good deal more than in the old days, because now you have to master over twenty subjects instead of the original six. The effect of this much higher standard of training will be accumulated over the years, and as these young men from Kew move out into the profession year by year, the standard of the work they do, as they rise in positions of authority in the horticultural world must generally raise the standards of the industry in our country and indeed in those many countries to which our students venture."

Speaking of the prizes and awards he said—"I am also impressed by the number of prizes presented by the Kew Guild. This prize-giving is a joint effort between the official Kew and the Guild, and I congratulate this year's President, Mr. Milne-Redhead, on the great interest which the Guild takes, and has always taken, in the training here at Kew".

The prizes were presented. After a few closing remarks by Sir George Taylor, the ceremony closed for tea which was served in the Orangery.

Kewites, learning and learned, have much to gain from the book by our Vice-President, W. Howell. Part of a review which was recently published sums this book up very well indeed—"The immediate impression, confirmed by a closer study, given by this book is the thoroughness with which the author has treated his subject. No detail is too small to be unworthy of attention."

It is titled *Bowling Greens*, published by F. J. Parsons, Ltd., The Adelphi, John Adam Street, London, W.C.2. Price 30/-.

KEW DIPLOMA AND PRIZES, 1969

Kew Diploma. This is awarded to students who have completed satisfactorily a three-year course of study at the Royal Botanic Gardens. The following students received the Diploma this year : M. J. Alderson, A. J. G. Esmonde, D. G. Evemy, P. A. Goodbury, S. A. Goodyear, C. Iles, P. A. Ketley, J. B. Lawrence, Miss J. Lee, R. Mann, M. R. Norton, P. E. Styles, P. C. Summerwell, T. M. Taylor and J. P. R. Wickham.

Bentham-Moxon Trust The following prizes were awarded under the aegis of the Bentham-Moxon Trust :

The Ernest Thornton-Smith Travelling Scholarship (Value : £800). This prize is presented jointly by Mr. Ernest Thornton-Smith and the Thornton-Smith Young People's Trust under the auspices of the Worshipful Company of Gardeners (of which Mr. Thornton-Smith is Senior Past Master), to enable a Kew student-gardener to travel to the Caribbean or Tropical South America for the purpose of enlarging his knowledge of the plants of these regions. It is awarded at the discretion of the Director, Royal Botanic Gardens. This year the scholarship has been awarded to D. G. Evemy.

G. C. Johnson Memorial Prize. This prize, which consists of a copy of the R.H.S. Gardeners' Dictionary, together with a cheque for £27, is presented from a fund administered by the Bentham-Moxon Trustees on behalf of *The Grower*. It was founded in memory of Mr. G. C. Johnson, a famous "Old Kewite" who had the interests of Kew students very much at heart. It is awarded for the best overall performance on the Kew Diploma course, and has been won in 1969 by A. J. G. Esmonde.

Kingdon-Ward Prize. In memory of the late Frank Kingdon-Ward, to whom gardeners owe a great debt for the contribution his plant-collecting expeditions made to British gardens. The prize was founded by his sister, Miss Winifred Kingdon-Ward, to provide a yearly prize of £10 to a Kew student-gardener for an essay on a horticultural subject. The prize this year was won by D. T. Maguire.

Landsman Bookshop Prize. This prize (value : 2 guineas) is awarded for the best work on landscape design and garden construction. It has been awarded this year to P. E. Styles.

*Sir Joseph Hooker Prize.** Presented by Sir George Taylor, Director of the Royal Botanic Gardens, in memory of his famous predecessor, Sir Joseph Hooker, to the student who has done most for the Mutual Improvement Society. Won this year by A. G. Burgess and J. P. R. Wickham jointly.

KEW GUILD PRIZES.

The following prizes have been presented by the Kew Guild :—

Matilda Smith Memorial Prize. Awarded in memory of Matilda Smith, artist at Kew for many years, to the student adjudged best at practical work. Won this year by J. P. R. Wickham.

*C. P. Raffill Prize.** Awarded in memory of C. P. Raffill, a former well-known Assistant Curator of the Royal Botanic Gardens, to the student giving the best paper to the Mutual Improvement Society. Won this year by D. T. Maguire.

Dümmer Memorial Prize. As part of their training, student-gardeners are required to make a collection of properly dried, named, mounted and labelled specimens of British flora. The prize for the best collection has this year been awarded to P. E. Styles.

Proudlock Prize. The runner-up for the best plant collection also receives a prize, awarded this year to D. G. Evemy.

Prize for the best garden plot. During the first year of the course students are required to cultivate a garden plot. The prize for the best plot by a student finishing this year is awarded to P. E. Styles.

Prize for the best individual study. Student-gardeners are required to carry out an individual study project during their course. The prize for the best one has been awarded to J. P. R. Wickham.

Refund of N.D.H. Examination Fees. The Kew Guild refund the fees of successful N.D.H. finalists. Eligible this year is A. J. G. Esmonde.

Mutual Improvement Society. The Society awards the following prizes :—

*Mutual Improvement Society's Prize.** For the member who has taken the most active part in its discussions and debates. It has been awarded this year to A. J. G. Esmonde.

Students' Union Prize £5 5s. 0d.

Plant Identification Tests, 1968-69. Prize for the best performance awarded to M. J. Leppard.

Photographic Society. Mr. S. W. Rawlings, Assistant Curator, kindly presents a prize for the best photographic effort by a Kew student-gardener. It has been awarded this year to P. A. Ketley.

* The recipients of the three prizes starred are chosen by ballot among the Mutual Improvement Society's members. (The Mutual Improvement Society is an association of students and staff which meets regularly to hear papers read by its members, and organise debates, visits and other activities to further its horticultural knowledge.)

ANNUAL GENERAL MEETING, 1969

The A.G.M. was held in the Lecture Theatre at Kew on 27th September, 1969, at 2.30 p.m. The President, Mr. E. Milne-Redhead was in the Chair with the Hon. Editor, Mr. G. E. Brown, the Hon. Treasurer, Mr. J. B. Simmons, the Hon. Secretary, Mr. F. N. Hepper, and 45 other members present. Members were welcomed by the President who rejoiced that once again we had a fine sunny day for the meeting which afforded friends and relations the best opportunity to view the Gardens.

Apologies for Absence. The following apologies had been received : Mr. F. Flippance, Mr. A. Hart, Mr. K. McCreadie, Mr. R. C. McMillan, Mr. L. Pemberton, Mr. A. D. Schilling and Mr. M. J. S. Sands.

Deceased Members. Members stood while the following names were read out : T. D. Boyd, H. E. Downer, F. Glover, L. J. Harding, R. F. Riebe, H. Ruck, G. Scott, Mrs. M. E. Suckling and Miss N. Wiltshire.

Minutes of the last A.G.M. having been circulated to all members in the *Journal* (Vol. VIII, No. LXXIII, pp. 870-873 (1969)) they were approved by the meeting and signed by the President. No matters were arising.

Reports of the Guild Officers :—

The Accounts for the year ending 31st December, 1968, had been audited and printed in the *Journal*, pp. 958-959. Mr. W. E. Storey proposed and Mr. N. Prockter seconded that they be approved, and it was agreed unanimously. The Hon. Treasurer gave a summary of the previous year's financial account and detailed the half-yearly accounts which had been circulated in the notice of the meeting. (Up to 30th June, 1969 : receipts £443 ; expenses £437 ; assets : Charities Official Investment Fund, 3,155 shares at £1 3s. 8½d. ; deposit account £646 ; current account £132.) Mr. Simmons was thanked by the Chairman for producing such a satisfactory statement.

Sale of Guild Emblems. Samples of the various items available had been placed on display by Mr. R. I. Beyer, and the following had been sold partly as a result of having them on view at the Dinner : 12 ties, 3 blazer badges and 14 scarves.

Membership. The following figures were given : Life Members 264 (including 23 whose addresses are unknown) ; Members 445 (composed of 369 away from Kew, 50 staff and 26 students).

Mr. R. Shaw then raised several matters that were troubling him. He felt the turnout at the A.G.M. was entirely unrepresentative of the Kewites and few of the younger generation were present. Why ? because there was nothing to interest them, he said. Wisley held activities, a lunch and tea on the day of their A.G.M. and by comparison Kew Guild's was a "dead duck". Younger mem-

bers of the Kew Staff would join if they saw something going on. Could it be combined with Round the Gardens race or other function? The President pointed out that there were two other opportunities to meet at the dinner and at the A.G.M. tea. Others present felt the attendance of over forty with about 90 at the tea was not bad considering the wide geographical dispersal of the membership. The Editor recalled what a valuable service the *Journal* does in linking members and providing a vehicle for news. It was finally agreed that the matter of activities on the same day as the A.G.M. to encourage membership participation should be considered by the Committee.

The Journal. The Hon. Editor stated that interest was maintained in the *Journal* and that there was a steady flow of articles and news items for future publication. The very fact that members who must be busy find time to write in is very encouraging. He mentioned also that the *Journal* was produced against a background of rising prices, a matter which will have to be considered in future years. He went on to say that articles for a special supplement to the *Journal* were ready. This would celebrate the Royal Visit to Kew when the Queen opened a new wing of the Herbarium and The Queen's Garden. The trustees of the Bentham-Moxon Fund had been asked for a grant of £70, about half the cost of printing (estimated at £140), which was felt to be more than the Guild could reasonably be expected to bear. Although the original approach to the Director about two years before had been optimistic there was now some doubt about the possibility of a grant. (In fact, a few days after the A.G.M. a formal rejection of the application was received). The Editor stated that whatever happened the publication of the supplement would go ahead even if economies had to be made in the *Journal* itself. Mr. N. J. Prockter felt the Guild could sell the supplements as he was sure there would be a wide demand if it was brought to the attention of readers of magazines and horticultural newspapers. Mr. J. P. M. Brenan supported this and hoped that the Committee would consider printing many hundred extra copies in their own covers to make it really worthwhile.

Collection of photographs. Twenty-seven extra photographs had been received during the year and the collection was on view at the Annual Dinner.

Annual Dinner. This was again held at the Chatham Restaurant, Victoria, on Tuesday, 20th May, 1969. Our President, Mr. E. Milne-Redhead, presided, and 120 members and guests were present. Rear-Admiral J. P. W. Furse was the guest who responded to the toast, and Mr. S. A. J. Oldham, Director of Parks, Glasgow, was also present. In his speech Mr. Milne-Redhead referred to the moral and financial support given by the Guild and its members to the Guyana Expedition being organised by the student gardeners. He applauded their initiative and he felt that this opened a new sphere of activity for the Guild and he wished the venture well.

Another precedent at the Dinner was set by the presentation of the Certificate of Honorary Membership to Mr. S. A. Pearce : Mr. J. R. Sealy was unable to be present to receive his certificate.

A member raised the question of the venue and timing of the annual dinner. He thought it could be held at Kew later in the year, but other members present were not enthusiastic. It was agreed that a questionnaire could be included in the next *Journal* asking the opinion of members.

The Prize Day. The Secretary reported that the prizes had been distributed to the students two days before the A.G.M. and the exhibits had been left up for inspection by Guild Members.

The Rt. Hon. Cledwyn Hughes, M.P., the Minister of Agriculture, Fisheries and Food, who distributed the prizes, spoke of the achievements at Kew of Sir George Taylor who had declared this to be his final prize-giving before retirement.

The Secretary then initiated discussion on the eligibility of the Proudlock Cup which is awarded to the winner of the lawn tennis competition. This matter had been discussed at length in committee which resolved to raise it at the A.G.M. for the consideration of the membership. Discussion revolved round the definition of Kewite in the original terms of reference when the prize was donated over thirty years ago. Members agreed that the donor had in mind anyone working at the R.B.G., Kew, and not simply a paid up member of the Guild. The term Kewite had since become more closely defined with the introduction of formal membership and it was felt that this was not what Mr. Proudlock had in mind. In view of the decline in numbers of those playing tennis it was important not to restrict unnecessarily the competition. Mr. Hepper proposed and Mr. Pearce seconded that eligibility of the Proudlock Cup should be extended to "any person who works or has worked at the Royal Botanic Gardens, Kew".

The Guild Committee. Retiring members of committee were Mr. A. T. Buckley, Mr. G. Joy, Dr. C. R. Metcalfe, Mr. W. E. Storey besides Mr. Milne-Redhead as President and Mr. F. L. Squibbs as Vice-President, who were all thanked for their willing service. The retiring student representative, Mr. G. Burgess, was replaced by Mr. M. Wilkinson at the nomination of the Students Union. Mr. H. J. Fleigner was the retiring auditor.

Proposed alterations to the Rules. Before the election of Officers took place alterations to the rules were proposed which affected the election (Rules 9a, 10a). All members had been circulated with the printed notices of the A.G.M. on which appeared the following rewording of Rule 3a : "Membership of the Guild shall be open to past and present Curators, Assistant Curators, Garden Supervisors, Student Gardeners, Professional and Executive members of the staff of the Royal Botanic Gardens, Kew, and Wakehurst Place ; also Voluntary Student Gardeners, Research Scientists and Liaison Scientists (providing they have worked at Kew or Wakehurst Place for at least one year)".

The Hon. Secretary said that this wording had been worked out by a sub-committee and approved by the Committee in order to accommodate certain categories that should be eligible for membership. Mr. Brenan proposed the addition of the word "continuously" between "worked" and "at" in the parenthesis and this was carried. However, considerable discussion ensued during which the surprising conclusion was reached by those present that it was now unnecessary to detail the categories in this way. The Hon. Secretary pointed out that he had always understood that this had been done to exclude the industrial staff from membership who might use it as a supposed qualification when applying for other work. Nevertheless members felt that only those with long service at Kew would be sufficiently interested to join and why should they, who have given much to Kew be excluded from membership of the Guild? The amendment was referred back to the Committee by Mr. N. J. Prockter and seconded by Mr. F. Ballard.

The other amendments to Rules 9a and 10a to add Honorary Assistant Secretary were carried *nem. con.* The Hon. Secretary stressed that this provision was not because of pressure of work, although Mr. Sands had performed a very useful function taking the minutes of the Committee meetings, but to give continuity should the Hon. Secretary be abroad. (By a curious twist of events it so happened that Mr. Sands had just left for the Far East and Mr. Hepper was about to leave for West Africa!)

Election of Officers, Members of Committee and Auditor. The Committee had nominated the following and as no further nominations had been received they were put to the vote one by one and duly elected: *President*: Mr. C. R. Stock; *President-Elect*: Dr. P. G. Greenway (Nairobi); *Vice-President*: Mr. W. Howell; *Hon. Editor*: Mr. G. E. Brown; *Hon. Treasurer*: Mr. J. B. Simmons; *Hon. Secretary*: Mr. F. N. Hepper; *Hon. Assistant Secretary*: Mr. M. J. S. Sands; *Members of Committee*: Mr. E. Baverstock (Sidcup), Mr. J. Sales (Chelmsford), Mr. W. J. Karani (Nairobi), Mr. J. Woodhams (Kew); *Hon. Auditor*: Mr. J. Keesing (Kew).

Mr. Stock then expressed his thanks on being elected President and outlined his plans to bring together Kewites in different parts of the country as he travels about. Dr. Greenway also sent a message from Nairobi saying that although he was honoured by the proposal to have him as President-Elect he could not see how he would be able to function as an active President short of resigning his post! But the Guild wished to honour him as a very distinguished Kewite and ways would be found, such as taping his message for the Annual Dinner.

Business was concluded, and as usual, tea was taken in the Orangery with members' families and guests.

F. NIGEL HEPPER, *Hon. Secretary.*

ASSOCIATION OF KEW GARDENERS IN AMERICA

When Howard Swift relinquished the presidency of the Association of Kew Gardeners in America in September, 1967, it seemed to mark the end of an era. Howard had held this group together to a large extent through personal contact with individuals, particularly with long-time members who especially valued their contact with former Kewites. We are all very grateful for the efforts Howard made on behalf of the Association.

Meanwhile the "Head Office" for the Association has been transferred from the Cleveland Garden Centre to the Royal Botanic Gardens, Hamilton, Ontario, Canada, and from here we are endeavouring to keep the flame burning.

In 1968 we took advantage of the fact that some Kewites would be attending the annual meeting of the International Society of Plant Propagators, held in Toronto in early December of that year. A dinner was arranged by Alan Carson followed by a social evening at the Carson home. Al Fordham, from the Arnold Arboretum, was the only member from "south of the border", all others being resident in Canada. Although it was basically a Canadian affair, it was interesting to listen to reminiscences in widely-ranging accents — from members, mostly Canadian by adoption.

Some of our senior members were missed on this occasion, but to compensate, the Toronto locale made it possible for some to attend for the first time. The group on this occasion comprised: James Taylor (1936) and Mrs. Taylor, Alfred Fordham (1937), Robert Keith (1937) and Mrs. Keith, Alan Carson (1953) and Mrs. Carson, Ian Smith (1953) and Mrs. Smith, Roy Forster (1957) and your President and Mrs. Laking (both 1941). This list has been made from memory and it is my hope that it is complete.

We are greatly indebted to Alan Carson and his wife for excellent dinner arrangements and for opening their home to us afterwards in such a hospitable manner.

For the record, the business meeting brought forth two new members to the directorate. Roy Forster was appointed Canadian Director replacing your President, and Al Fordham as replacement for the late Henry Downer.

In 1969, the Kew Dinner was held on September 16th in Philadelphia at the Ben Franklin Hotel, headquarters for the American Horticultural Congress. This attracted a group of sixteen including guests from Edinburgh and Wisley. The highlight of reminiscences was provided by one of our beloved senior members, George H. Pring, who attended with his daughter, Mrs. Russell Siebert.

This occasion was arranged by a member of the younger generation of Kewites, Michael Dodge of "Winterthur" in Delaware, and we are indebted to him also for his excellent slide presentation of Kew which everyone appreciated and enjoyed.

At the 1969 meeting, Wisley was represented by Roy Boutard, Angus Heeps, Christopher Chowins, and Patrick Seymour from Edmonton, represented Edinburgh. Kew was represented by George H. Pring (1906) and guest Mrs. Siebert, Clement Agate (1926) and guest Herbert Perrin, Alfred Fordham (1937), Gordon DeWolfe (Kew Herbarium 1939-41), Patrick Nutt (Wisley 1950, Kew 1953) and guest Derek Paterson, Ronald Bauman (1962), Michael Dodge (1961), and your President and Mrs. Laking (both 1941).

Since this meeting, regretfully we have learned of the passing of two more of our outstanding senior Kewites, Professor Henry L. R. Chapman (Kew 1919), known best for his work at the Beal Botanical Garden, Michigan State University from 1926-1950, and more recently Mr. J. H. Beale (Kew 1911) of Ridgefield, Conn., who we shall long remember for his book *The Evergreen* published in 1960.

LESLIE LAKING, *President, A.K.G.A.*

“SONGS OF PRAISE”
or
“TREE-TOP PRAYERS”

Two blackbirds chatted on a tree :
“It’s strange”, said one, “there seems to be
No crumbs today for you and me,
I think that’s odd, I really do,
There is no bread for me or you.
In fact, there’s no-one here at Kew !
Just look around ; this tree is tall
And we can see from wall to wall.
There are no humans here at all !
Not a biscuit, cake or crumb.
I never thought the day would come
When I would have an empty tum !”

The other bird, a wiser thing,
Stretched a leg and shook a wing :
“Praise God”, he said, “and sing.
The human beings, so they say,
Just once a year must stay away
I hear they call it Christmas Day.
The earth is hard, but never mind
Let’s hope our God is very kind
And leaves us many worms to find.”

Then looking at St. Anne’s, he said,
“All creatures need to be well fed.
Give unto us our daily bread.”

A. W. EVERETT,
Night Watchman—Herbarium.

STUDENTS' UNION REPORT

It is with some regret that we said our farewell to the former President of the Union, Mr. A. Ketley. The work he so sedulously carried out for the Union was by no means little. May I take this opportunity through the *Guild Journal* to express the students' sincere thanks to him.

Much has been achieved over the past few months. With the guidance and help of the Curator and Mr. Pemberton, the course has been completely reorganised. A more even distribution of lectures over the three years and a stiffening up of examination procedure will result in the course being harder, but more rewarding and worthy of the name of Kew.

The Union has undergone radical changes. The executive body which consisted of about 15—President, Secretary, Treasurer and the Secretaries of the various activities has been abandoned. As a replacement we have a 7-man committee consisting of President, Secretary and five members. Each of these will be able to carry the load more smoothly and efficiently, leaving the Secretaries of the other activities to devote more time to their work, which is so essential to the social life of us all.

Many students have these past twelve months organised themselves into "study groups", working for the N.D.H. Intermediate and for the increasingly popular Certificate and Diploma in Arboriculture. Their work has not been in vain.

Once again problems were met in trying to find accommodation, some students having to travel daily as far as Ealing and Putney Bridge. Accommodation in Kew is becoming more and more difficult to find and the situation will I fear, be acute in the not too distant future. There is no doubt that very soon some sort of accommodation arrangement will have to be provided. There is a small committee looking into this problem and if any past Kewites have any ideas these will be greatly appreciated.

Lastly, may I convey our thanks to the Officers of the Union. Without their enthusiasm very little could be achieved at all.

COLIN HILTON, *President*, 1969/70

WEDDING BELLS

P. A. Goodbury (1969) to Miss Valerie Underwood at Bethel Evangelical Free Church, Leicester, on 23rd August, 1969.

G. N. Graham (1967) to Miss M. Jones (1968) on 17th May, 1969, at St. Andrew's Church, Bebington, Wirral, Cheshire.

A. R. Smith, (1967) to Miss Alison Milnes on 25th July, 1968.

K. Woolliams (1963)—his wife's name being Akiko.

Members will also wish all happiness to the Director, Sir George Taylor, who was married to Lady Colwyn on 15th May, 1969.

SOCIAL ACTIVITIES

Social Section. The first event of the year was the Kew/Wisley Dance, organised by Wisley and held in the Esher Town Hall. It was very successful, especially for Wisley, winners of the race. The Wine and Cheese Party for the new intake of students in October, duly organised by B. Roby, the retiring Secretary, created a great deal of interest and enthusiasm. The Christmas Party was held in early December. The theme was masks and the music provided by a discotheque gave us interesting and exciting music to dance to. I would like to thank all concerned for a successful year.

S. A. WILTON, *Hon. Secretary.*

Table Tennis. The Society has been relatively active during the past season. Practices are held every Monday evening and also at other times. External matches are arranged with neighbouring institutions through the season. The team must be one of the strongest in the history of Kew with star players as R. Storr, A. Andoh, A. P. Child and C. B. Bamkole.

C. B. BAMKOLE, *Hon. Secretary.*

Music Circle. The last of our meetings at the home of Dr. Metcalfe in Pensford Avenue was held in August following his retirement. This was particularly well attended with the audience almost spilling over into the next room. A farewell party was given by Dr. and Mrs. Metcalfe on July 26th, when many past and present members attended. We hope to start meeting again in 1970 initially using the Jodrell Common Room. On 16th December a party of twenty-five sang Christmas Carols in the Kew area, collecting £16 for Oxfam. We thank Dr. and Mrs. Metcalfe for welcoming the Music Circle to their home for the last twenty years. May they enjoy a happy retirement.

G. P. WOOD, *Hon. Secretary.*

Tennis Club. Following the pattern of recent years, the courts were popular in the early part of the season, but interest waned during the holiday months. No less than four members of the club also attended the XIth International Botanical Congress in Seattle. Regular weekend play was not established to the extent we had hoped. The Nathismus Cup was won by the Natural History Museum, and the Proudlock tournaments were abandoned for the lack of entries. The club is grateful to the two students, M. A. Childs and D. Owen, who maintained the courts.

D. R. HUNT.

Athletics. The section has had less success this season than previously, but it is hoped that this will only be a temporary setback. Training for 1970 has already been undertaken.

Kew/Wisley Race. The 19th Annual Race was held on March 8th, one the hottest days for this month on record. Thirteen teams entered. The race was started on Kew Green at 2.00 p.m. by the Director, Sir George Taylor. Alas, this year saw the end of Kew's domination of the race after six years! The race was won

by Wisley in a time of 1 hr. 53 mins. 33 secs. for a distance of 19.1 miles. Pershore was second for the third consecutive year, followed by Kew. Only 63 secs. separated the first three teams—the closest race so far. During the dance which followed the Director of Wisley, Mr. F. P. Knight, presented the prizes. The Pring Cup, Invitation Cup and 1st Team medals went to Wisley. 2nd Place medals to Pershore and the Maori Batons to Kew. Other teams taking part were: Askham Bryan, Edinburgh, Grotto, Hadlow, Kew Guild, Merrist Wood, Oaklands, Wisbech and Writtle. The Kew Guild team finishing fifth in 1 hr. 55 mins. 28 secs.

Round Bredon Race. This was the second year of the race sponsored by Pershore Institute of Horticulture. It was held on 17th May. Seven teams lined up at the start in a light shower of rain, following a week of fine weather. A heavy fall of hail during the third lap made the going particularly difficult, in spite of which M. Holloway completely shattered the lap record. Medals were presented to the first three teams by Mr. Alwin (Pershore) during the dance and Bar B-Q which followed.

Civil Service Sports Day. Kew still have not recovered the domination of these sports they have enjoyed in the past. More individuals took part this year, giving us slightly more points than the 15½ of last year but there is still room for improvement. Kew took several places in the novelty events.

B. ROBY, *Hon. Secretary.*

Cricket. The season opened up with considerable enthusiasm and with two good wins, but later, owing to "examination fever" a number of matches were cancelled. The match against Wisley was abandoned half-way through owing to rain. The highlight of the season was the Staff v. Students Match which after a really hard fight was won by the Staff, much to the surprise of the Students.

M. WILKINSON, *Hon. Secretary.*

Mutual Improvement Society. 1969-70 session. The session provided a variety of lectures by students, staff and outside speakers. Attendances continued to maintain a steady improvement and much credit must be given to the committee, who worked hard to put the Society back on its feet. The "Ad Lib" contest had twelve competitors, M. Leppard winning the Keith Jones Cup with his talk on "Alcohol". The Kew-Wisley debate had the motion—"The Pill is no solution to the population problem". Mrs. Pemberton convincingly argued against the motion and it was defeated. The "I.Q." Quiz proved a great success under the chairmanship of Mr. King.

G. R. WATTS, *Hon. Secretary.*

Football. During the 1968-69 season the weather was consistently unfavourable and only one half of the arranged fixtures took place. Of the ten games played there were three wins and one draw. The 1969-70 season has begun with two defeats by the R.H.S. Wisley Gardens and by the Merrist Wood Farm Institute.

A. P. HARVEY, *Hon. Secretary.*

Photographic Club. A slide evening is planned with members showing their favourite slides. Provided that there is sufficient support it is hoped that such evenings become a regular feature. The annual competition is to be held on the 25th February, from which the best slides will be selected and entered in the Wisley, Edinburgh and Kew Competition. The various social and sporting events of the Students' Union are covered by the Photographic Club and post-card size black and white prints and/or colour slides are available at modest prices.

P. DUNWOOD, *Hon. Secretary.*

THE FOUNDING OF THE *ORCHID DIGEST* (published California)

Mention was made of Mr. C. N. Warren (1912) in the *K.G.J.*, 1963, p. 298 and 1968, p. 896. Mrs. Warren has kindly sent us a copy of the May, 1968, *Orchid Digest* (published California). Within this copy is an article "The Founding of the *Orchid Digest*" by John Walters and Art Sear. This will be of great interest to Kewites and we therefore reproduce this in full:—

In September, 1937, a group of hobbyists, members of the Orchid Society of California (which had been organised only that April), proudly published Volume 1, Number 1 of a new magazine, *The Orchid Digest*. The little magazine (it was only 5½ x 8½ inches, and had just twenty pages, including covers and two blank pages for notes) was not lavishly illustrated with colour photographs (or any photographs for that matter) but the index to the articles in that first issue still sounds interesting: "An Amateur Orchid Grower's start", by H. E. Metcalfe, the Society's President; "Orchids as a hobby", by Thomas Kirkwood; a reprint from the Australian Orchid Review, *Cattleyas*, by B. P. Dunster, of Tunbridge Wells, England; a number of brief items; and two articles, on "Cool-Growing Spray Orchids" and on "Commercial Orchids", both signed by Mr. Cyril Warren.

A second glance at the cover of Number 1 reveals that it was edited by "C. and A. Warren", Mr. Cyril Warren and his wife Anita. Like many another pioneering Editor, Mr. Warren had to start off writing much of his own magazine. In Mr. Warren's case, it probably wasn't difficult, for Cyril Warren was well, even uniquely, qualified to talk about orchids. In addition to broad experience in orchid growing, Cyril Warren's early formal training included study at Kew Gardens with R. A. Rolfe, the originator of the famous *Orchid Review*.

Training at Kew Gardens

Requirements for entry into the training at the Royal Botanic Gardens at Kew included eight years of practical experience, either with a private grower or in a commercial nursery. In other words, the candidate had to be well-trained in growing practices, and needed a general knowledge of plants to begin.

Besides the apprenticeship requirement, the applicant was interviewed and placed on the waiting list. At that time only 26 students a year entered training. Before entering Kew, Mr. Warren had the pleasure of working for Mrs. Temple, owner of the White Star Line and of a large orchid collection. Says Mr. Warren, "She gave me a special room in which to work and helped me study botany in conjunction with my work in the orchid house. She put lamps in the library for me to study by".

With this background Mr. Warren's entry to Kew was assured: "At Kew you had to work 12 hours a day. You started work at 6 o'clock in the morning and got off an hour, at 8. One-half hour of that time had to be devoted to the study of botany—you had to go around and examine the various botanical specimens in bloom in the garden. Then, everyone worked until 6 o'clock each evening.

"Lectures were four nights a week, at 7 o'clock. Then, you had to write up lectures and have them in the Curator's office by 9 o'clock the next morning. You can see, we burned the midnight oil very often. (In addition, if you wished to be in the swing of things, you belonged to the cricket and football clubs.) We had five different lectures: physics and chemistry by Professor Haas; geographic botany by Rolfe; economic botany; plant collecting; and fertilizers. These lectures continued throughout the two-year course.

"When I was at Kew, a painter, Miss North, was doing all the pictures of orchids. I was in charge of the orchid house at that time—that was in 1911. Miss North was one of the finest painters of Orchids. In fact, one of the galleries at Kew is filled with her paintings. We used to notify her when something new was beginning to open. Once, a *Stanhopea wardii* flowered in my house, so I called her to come and paint it. However, she would not paint it, except under the conditions in which the plant was growing. For example she would not take the plant into the potting shed, she would paint it right there in the hothouse.

"We used to close the greenhouses from 1 to 2 p.m. every day. So, I went to her and said that we had to close up for this hour. Now, being a determined soul, she said that she would be all right and would continue her work. I said that was fine with me, but I would have to lock the doors. I went back into the house at 2 p.m. but I did not see her. There was her easel standing in one corner and there was *Stanhopea* hanging down with three flowers on it, but no Miss North. I walked on into the next house to see what she might be doing. As I turned by the door, I caught sight of a shoe sticking out from under the bench. I got hold of her, dragged her out, and revived her. She had fainted because it was so hot and stuffy in the closed greenhouse."

Orchid Collecting Expeditions

Mr. Warren has a vivid memory of his early experiences and many mementos to remind him of these events. One story, in particular, gives further insight into his remarkable career.

"In September, 1912, I met the great explorer, Eugene Andre, who was a naturalist and had studied in the Guianas. He was, at that time, the head explorer and collector for the Baron Rothschild. Andre was in London interviewing people with orchid experience to go with him on an expedition up the Orinoco River in search of orchids. He wanted *Cattleya mossiae* particularly, and he had no one who knew the plant. (It was a rarity in those days and they wanted it because it was known to flower at Easter time.)

"After our outfitting, we went up the Orinoco River. Sixteen of us began the expedition, but only eight of us came back !

"Later I made a trip up the river for myself. I had saved up money of my own to make the trip to collect, *C. mossiae*. These were beautiful plant clusters—twenty to forty pseudobulbs in a cluster. I had six thousand *C. mossiae* that were all my own ! I was still on this collecting trip when the First World War broke out, and I was called back to England. I went down to the sea coast to get a ship to send these plants, but I couldn't get space for them. I finally got them on in a cattle hold and it cost me something like \$40.00 just to get them abroad. When I got to England, all I could get for them was the equivalent of 50c. each.

"I was given a commission in the British Army and served under the Colonial Secretary in Nigeria, British West Africa. I was made Curator of the Agriculture Department at the Moore Plantation at Baden. I taught the first class of Nigerian natives that were instructed in agriculture in 1915.

"Besides working at the agricultural station, we all had responsibilities out on patrol for the army. While I was there I collected about 6,000 species. (The patrols used to take about six weeks ; I was commissioner in about a 160-square-mile area, where I was responsible for life and death.) The species that I collected were dried and sent to Kew. I would put them in paper and then blotting paper, but even then they would mildew."

The Warrens in California

Following World War 1, Mr. Warren came to Canada. It was his intention to go to Australia. Instead he migrated to Seattle, where he met his wife-to-be, Anita, who was then the Secretary-Treasurer of a large nursery company. Their common interests grew into greater appreciation of each other and they were later married . . . and have continued their honeymoon in California.

"In 1927, a fellow I had worked with in England, at Sir Trevor Lawrence's place,* told Mr. J. A. Carbone, Sr., that I knew orchids. In February that year, I was put in charge of Carbone's establishment up on the hill in the back of Berkeley. They had very large plants in 10- and 12-in. pots but scarcely any flowers. The glasshouses were so heavily shaded that I had eight men scraping

* Sir Trevor Lawrence, Pres. of the Royal Hort. Society, 1885-1913. Home at Burford Court, Dorking. *R.H.S. Journal*, Vol. XXXIV, 1914, p. 514.

the glass. The first year after clearing the glass, we cut 22,000 beautiful *Cattleya trianae* flowers for Christmas! This was at a time when the flowers brought \$3.00 and \$4.00 each.

"Later on, Mrs. Warren and I bought our place in Berkeley, California, from John Carbone, and we have been here, operating our nursery, ever since. Saturdays and Sundays, we were occupied continually from 10 o'clock until 5 by people who wanted information about orchids. The result was that I spent the day talking. They were here so much that Anita and I began to make notes on what they asked about—the growing, whether it was necessary to have a greenhouse—and all of the various items that the orchid inquisitor wants to know about. The way we figured, we could cover these topics best by writing a booklet for the orchid society. The basic of it was a 'Digest' of our information and information from others who knew how to raise orchids. This is briefly how we began to think about the name for the magazine. I was corresponding secretary for the *Florist Exchange* and was preparing a weekly article on orchids for them and, since there was no source of information on orchids locally, everyone thought the idea of a magazine a good one.

"No one had been in an orchid society, and that is why it was so spontaneous. The Orchid Society of California was formed by a group of 34, but soon as many as 300 people started coming to the meetings. We filled the meeting place—the coroner's office for Alameda County. Some of the people thought it was a bad place to hold the meeting, but it did not cost us anything, and that was a major consideration when we began to form the Society."

Asked about flower evaluation in those early days (*The Digest* began printing articles on point scoring as early as 1941), Mr. Warren commented:

"Quality of bloom was very definitely in our minds. I had a very dear friend here whose name was Tom Kirkwood, and we discussed this subject very early. I had been the judge at the San Mateo Fiesta and he was also a judge at the first Alameda County Flower Show. Fred Marsh was the Horticultural Commissioner for California at that time, and was senior judge of the show. We discussed at great length—Fred Marsh, Tom Kirkwood and myself—the idea that we should work to get people to know the various qualities of the flower and to evaluate them from a study of the species and characteristics of the particular plant. Rolfe in his *Orchid Review* stressed this point often. You see, the Royal Horticultural Society's Orchid Committee held judging classes every other week at St. Vincent's Square in London. These were truly learning sessions in the finer points of orchid judging. I attended these many times because I would go up with Mr. White to help stage the displays of Sir Trevor Lawrence's collection. I gained quite a little experience in attending those discussions. At that time the grower had to own the plant for three years before he could assign a varietal name to his plant.

"We were very interested in accurate nomenclature and tried

diligently to get the necessary information to the people who wanted to learn."

These have been glimpses of the long and rich life of a very important person in the history of orchids in California. But perhaps Cyril and Anita Warren's greatest contribution was the enthusiasm that they put into the first issues of the *Orchid Digest*. Without Cyril Warren's persistence and determination, the *Orchid Digest* would not exist.

NEWS FROM SOUTH AFRICA

E. Scarr (1967) wrote in during December that he has just finished his final six subjects for the N.D.H. He has also moved to Durban. Quoting from his letter, he first mentions the interesting photograph which we have published—"It was taken at an Eastern Cape Districts Branch of the Institute of Park and Recreation Administration meeting at Port Elizabeth. As the Old Kewites covered such a long period of Kew training we thought that it would be of use in the *Journal*. It covers a period of 46 years.



From left to right they are—F. J. Cook (1921) Retired Superintendent of Parks, Port Elizabeth; Mrs. J. Scarr (1967), at that time Horticulturist in Port Elizabeth Parks; J. R. Sieben (1952) Superintendent of Parks, Queenstown; E. Scarr (1967), at that time Horticulturist in Port Elizabeth Parks; Mrs. M. Werner (1944); Mr. H. F. Werner (1943), Superintendent of Parks, King Williams Town.

"It was a very happy gathering, and quite strange to us to hear of conditions at Kew in the 1920's. It wasn't all work and no play then, even if they had to work harder and longer hours than we do today. Actually there is another Kewite in our district—J. D. Cameron (1953) of East London, but he was not there on the day the photograph was taken. When you think of it, eight Kewites from four Eastern Cape towns isn't at all bad!

"Since the photograph was taken we have moved up to Durban (600 miles up coast from Port Elizabeth). At the end of March I took up the post of Senior Horticulturist and am gaining very good experience. The plants which we do have up here are amazing in their diversity—it is like the Palm House, No. 9 and 10 plus the orchids, without the glass, except that Azaleas do equally well here as in the United Kingdom. For ground cover we use species of—*Pilea*, *Begonia*, *Peperomia*, *Setcreasea*, *Tradescantia*, *Impatiens*, *Spathiphyllum* and various Bromeliads, etc. Species of *Draceana*, *Dieffenbachia*, *Croton*, *Aphelandra*, *Sanchezia*, etc., are used as shrubby backgrounds to the normal bedding plants.

"In Mitchell Park, the main ornamental garden in the district, we had an excellent show of Daffodils and Tulips in the winter, a mere 6 to 8 weeks after planting. The bedding in Mitchell Park is constantly being changed, with everything being planted out when in full flower and then being replaced in 3 to 4 weeks. What an asset polythene bags are!

"The number of British people we have met remark—'We had no idea that South Africa was so beautiful and green'. Granted you can go into the Karoo and it is just like the Sherman Hoyte House, but then it is such a vast country and has such a variety of vegetation. We have to go about ten miles from Durban and you are in dense bush, mainly *Strelitzia nicoloi* up to 30 or 40 ft. tall, or if you go north you come to sugar cane fields which stretch for over 100 miles for as far inland as the eye can see. One of our favourite spots has *Streptocarpus* and *Clivia miniata* growing wild in dense forest. The trip from Cape Town to Durban by road is really worth the long drive as it is such an invigorating landscape."

NEWS FROM AUSTRALIA

T. R. N. Lothian (1940), Director, Adelaide Botanic Garden, referred in a recent letter to the planning and development of the new 200-acre Botanic Garden in the Mount Lofty Ranges, about 15 miles to the east of Adelaide. The collections include North Temperate and Sub-Alpine trees and shrubs, high veld material from South Africa, California, some of the South American States plants and certain sections of the Australian vegetation. He also referred to a 35-acre property which has been taken over by the Botanic Garden authority. It is famous for the excellence of its South African and Australian plant collections.

Mr. Lothian continued—"To a lesser degree we are also involved in redesigning the Adelaide Botanic Garden. This is now over 114 years old and because of changed requirements, many arbours and similar features which are very heavy on maintenance are being replaced. In addition a tremendous amount of replanting has taken place. Emphasis is being placed on sub-tropical and arid species."

Mr. Lothian has been appointed Chairman of a Commission which is to look after the expanding national park service throughout South Australia.

R. Hardie (1954). Mr. Lothian has sent in the news that Rob Hardie has become deeply interested in religious matters and is now studying full time with the Adelaide Bible Society. He is now in his final year of a three-year course.

T. Whitehill (1962) is still a member of the staff of the Botanic Garden, Adelaide, under Mr. T. R. N. Lothian, the Director. He is Tree Advisory Officer and is responsible for five experimental plantations. They vary in size, but were established many years ago to test ornamental trees and shrubs which grow under natural conditions within 14-18 inches of rain per annum. The results are made available to various farm communities in the hope that they improve their homesteads. He is also responsible for advising schools, progress associations and other organisations as well as individuals within the country area regarding matters relating to horticulture and the growing of trees and shrubs.

NEWS OF KEW

On page 902 of the 1968 *Journal* (Vol. VIII, No. LXXIII), reference was made to the South African Flower Display on Open Day, 4th May 1968. In an article of the *Journal* of the Botanical Society of South Africa (55 : 25-9 (1969)) there is some interesting information about this exhibit. Some of the flowers were sent by sea, others by air. *Proteas* were in both consignments.

The flowers for shipment by sea were picked on 11th April, stored at 35° F. until 16th April, packed in polythene bags and stowed on the ship's deck at 32° F. They were discharged from the ship on 29th April. There were thus 22-23 days between packing and exhibition. The flowers sent by air were picked on 29th April, cooled to 50° F., packed in cartons and sent by air on 30th April, arriving at Heathrow on 1st May. These results confirm the sea transport of *Proteacea* no longer presents any major problems and that many species can be successfully stored for up to five weeks and still last well in a vase.

A similar collection was on display at Open Day in May, 1969. This time all the material, representing over forty species, were flown in specially for this exhibit.

A fine specimen of *Yucca elephantipes* Regal (*Y. guatamalensis* Baker) was in flower in the Temperate House. The large waxy-white flowers were on a spike which was over 30 ft. in length.

The fine coloured reproduction of a photograph *Cornus alba* 'Sibirica', the Westonbirt Dogwood figured on the cover page of the December, 1969, issue of the *R.H.S. Journal*, was taken by the lakeside at Kew. The brilliant colouring is by no means exaggerated. The clumps are pruned down to ground level in the spring of each year, just as growth is about to commence.

When the bookcases were removed in the old central library of the Herbarium (Hunters House) as part of the reorganisation, an old wallpaper was revealed. This was examined by Mr. E. Entwisle, an authority on the history of wallpaper. He reported that it was a modest two-colour wooden block wallpaper of the 1830's. Probably it was put up in 1830-31 when the house was made ready as a residence for the Duke and Duchess of Cumberland.

Miss M. Grierson put a number of her paintings on display on the 18th and 19th November. The main reason for the exhibition was to show the series and paintings of the species of *Biarum*. Mr. Brian Matthews is interested in them as a group and nearly all those illustrations on show were of plants which he had collected on his trips to the Middle East. One of the aims of the exhibit was to stimulate interest and to locate other species which might be in cultivation. Indeed from this we learned that Rear Admiral Furze had collected quite a number on his travels. In addition some of her drawings of new and rare species of Socotran plants collected by Mr. A. R. Smith were also on display in the 24 feet of space allotted. Mention must also be made of the beautiful paintings of orchids. These do not preserve well—in the plant press they turn black, while they lose their colour in spirit. Miss Grierson provides an effective answer to this by painting any new species which is received or comes into flower in the Orchid Houses.

Miss Grierson also painted the Certificate of Honorary Membership which was presented to Mr. Pearce and Mr. Sealy for their services to the Guild.

Leisler's Bat (*Nyctalus leisleri* Kahl) has again been found in the Gardens (*K.G.J.* 1965, p. 560). Mr. R. B. Askquith-Ellis, on 4th January whilst felling the old Common Lime that used to hold the bell, heard squeaks above the noise of the motor chain saw. He then discovered two hibernating bats in a crevice and rescued them. One was later identified by Mr. Michael Blackmore as a male of this very local species.

During the summer of 1969, the South African Liaison botanist at the Herbarium, Mr. E. G. H. Oliver, concluded his two years in this country. He has been continuing his studies on South African *Ericaceae* in particular. Taking his place is Dr. D. J. B.

Killick who was previously at the Herbarium between 1954 and 1957.

The Australian Liaison botanist, Mr. A. S. George, left the Herbarium at the end of 1968 after a year, and he was succeeded by Mr. D. G. McGillioray, who will stay until the end of March, 1970. His particular interest is the genus *Grevillea*.

AWARDS

Sir George Taylor, Director, was presented with the Bradford Washburn Award by the Museum of Science, Boston, Massachusetts in October, 1969.

J. P. M. Brenan, Deputy Director, Keeper of Herbarium and Library, has been elected to the office of President-Elect of the Association for Tropical Biology for 1969-70.

T. H. Everett (1920) (President of K.G. 1966/67), awarded New York Botanic Gardens Distinguished Service Award in recognition of his many varied contributions to the Botanical Garden and his long and distinguished career as a horticulturist.

E. W. B. H. Milne-Redhead, Deputy Keeper of Herbarium and Library (President of K.G. 1968/69) was elected President of the Botanical Society of the British Isles in May, 1969.

H. Taylor (1933) was awarded the M.B.E.—announced 14th June, 1969.

R. E. Dean (1936) has been awarded the Efficiency Decoration. (1964, Hong Kong.)

Dr. J. K. Ferguson (Senior Scientific Officer) was elected as Honorary Secretary of the Botanical Society of the British Isles in May, 1969.

R. C. Bauman (1962) granted a Master's Degree in Ornamental Horticulture in the Longwood programme, in June, 1969.

A. Armony (1964) has passed Part 1 of the examination leading to the degree of M.A. in Landscape Design at Sheffield University.

B. G. Thames (1961) awarded a Teaching Certificate of Newton Park College (University of Bristol) with a Distinction in Rural Studies.

E. Baverstock (1954) Certificate in Landscape Design.

N.D.H. Final—A. J. G. Esmonde, Student (General Section); J. Jones (1966), B. Frankland (1967) and M. Hart (1967) all Horticulture in Public Parks.

H. Van der Breggan (1961) N.D.H. (South Africa).

D.I.P.R.A., Final—B. Nash (1967), and R. Bowen (1966). J. D. Higham (1963) in 1967.

NEWS OF KEWITES

W. G. Andrews (1922), who took over as Curator of the Darrah Collection, Manchester, in 1948, was previously Head Gardener at Tresco, a post now held by J. D. Smith (1963). Mr. Andrews has now retired.

A. Armony (1964) is enjoying life at Sheffield University despite the fact that he is overworked. In September, 1969, he wrote—"I thoroughly enjoy the studies and a jolly good course it is!"

R. A. Bee (1953) was promoted to the position of Director of Parks, Manchester, on 6th May, 1969. Previously he was Deputy Director of this Department.

P. S. L. Benton (1947)—a G.M.O. Tec.I. with the Ministry of Public Building and Works has finished his tour of duty in Germany and is now working in the Lincolnshire, Rutland and Northampton area.

J. Beswick (1967) is attending Manchester Polytechnic on a Post-Graduate Landscape Course.

A. Balfour (1968) has left Worcester (Karoo Botanical Gardens) and returned to Johannesburg Parks Department.

R. C. Bauman (1962) was appointed Horticulturist at Mt. Cuba Botanical Park, Greenville, Delaware, U.S.A., in July, 1969. Previously he held the post of Assistant in the Education Department at Longwood Gardens for six years. From 1967-69 he attended the University of Delaware and in June he was granted a Master's Degree in Ornamental Horticulture in the Longwood Programme. For his thesis he produced a work on "Separating cultivars of *Juniperus horizontalis* using Thin-Layer Chromatography". After graduation he went on a three-week tour of Costa Rica as part of the Longwood Programme. The emphasis was on tropical horticulture (see Awards).

J. B. Boulton (1956) was appointed Head of Department, Rural Studies at Redbourne Secondary School, Herts, in September, 1962. Previously he held the position of Rural Studies Teacher at Sittingbourne, Kent. He has now become a student for one year at Reading University Institute.

A. A. Cavanagh (1923) has returned to this country from the Argentine and has now taken up permanent residence in Camborne, Cornwall.

B. Carter (1959) was appointed to the position of Landscape Assistant at Land Use Consultants, 139 Sloane Street, S.W.1, on 31st March. Previously he held the position of Landscape Assistant to the G.L.C. Parks Department for six years.

A. J. W. Cheek (1929) retired from Manchester Parks Department on 23rd December. We thought it would be fitting to publish a copy of the Parks Committee resolution : —

“That this Committee place on record their sincere appreciation of the long and faithful service rendered to the Corporation over the past 40 years by Mr. A. J. W. Cheek.

“The Committee recall that Mr. Cheek entered the service of the Manchester Parks Department as a Journeyman Gardener in July, 1929, and after several promotions was appointed to his present post of District Parks Superintendent at Alexandra Park in 1946. As part of his duties he was responsible for the floral decorations at civic functions in the Town Hall and other Corporation establishments and the Committee recall with pleasure the very high standard of these floral displays. Mr. Cheek was also closely concerned with the organisation of the Manchester Flower Show and played a leading role in the staging of the Show.”

M. R. Cudd (1968) has been appointed as Arboriculturist to the London Borough of Hounslow Parks Department.

R. E. Dean (1963) was appointed to the position of Regional Grounds Maintenance Officer at the Ministry of Public Building and Works Headquarters, Singapore, in October, 1965. Previously he had held the position of Superintendent of Parks and Gardens, Hong Kong, for 19 years. (See also Awards.)

B. W. D. Dodds (1961) left Newcastle in February and is now with a firm of Landscape Architects in Canada.

S. Dyall (1968) wrote in recently giving details of his post as Technical Assistant to Cheadle and Gately Urban District Parks Department which he took up on leaving Kew in 1968. He and his wife Linda are very happy in their new home and they have a baby girl—Claire Beverley. His department is at present developing a new central park from old farm meadowland. Part of the area of 90 acres is established park-land adjacent to an old manor house (Brentwood Hall). This development, the plans for a new nursery complex and work on tree preservation orders, keep him busy.

D. J. Dyke (1961) was appointed to the position of Landscape Architect to the Ministry of Transport in March. Previously he held the position of Assistant Landscape Architect at Cardiff Parks Department after attending the Parks Administration Course.

D. G. Edwards (1948) has retired as Manager of Toynbee Nurseries, Sussex.

T. H. Everett has presented a copy of his latest book *Living Trees of the World* to the Students' Library at Kew. It is published by Doubleday and Company Inc., New York. There are 350 illustrations, including 67 in full colour. These are superb.

J. B. Gaggini (1963), who is a Grade III Adviser in the N.A.A.S., has a special interest in Nursery Stock. Based at Guildford, Surrey, he is called upon to give advice both locally and nationally. He is also responsible for the N.A.A.S. Rose Rootstock Evaluation Experiment at Merrist Wood.

G. M. Gaskin (1967) is happily engaged on commercial work in Spain. This includes planning and one of the projects is the development of a completely new nursery centre. He writes—"Scenery in this part of the world is very nice. We have mountains to the north of us ranging to 3,000 ft. and the house in which we live overlooks the Mediterranean. On a clear day we can see North Africa."

L. Gibbons (1961) was appointed to the position of Parks Superintendent to Dukinfield Borough Council, Cheshire, on 23rd January, 1963. Previously he held the position of Foreman Gardener at the City of Salford, Lancs., for two years.

C. Giles (1967) is enjoying life with his family in Malta where he holds a posting under the Ministry of Public Building and Works. He is on a three-year contract.

G. N. Graham (1967) wrote in during August from Newport. With his wife Marion (1968) he is enjoying life. Newport, he states, has three main parks, two of which are well furnished with trees and shrubs. These two parks have natural streams.

Mrs. M. Graham (1968, née Miss M. Jones—see wedding bells) is working at Cleppa Park Experimental Horticulture Station where she is engaged on recording and general experimental work.

M. J. Griffin (1963) was appointed as Senior Horticultural Assistant to the Parks and Gardens Department of the County Borough of Brighton on 5th January, 1970. Previously he held the position of Technical Assistant (Landscape), to the London Borough of Bexley for four and a half years.

J. G. van der Breggan (1961) was appointed Senior Superintendent of the Public Works Department, Rondebosch, Cape Town, South Africa, on 1st June, 1969. Previously he was Assistant Superintendent at Pretoria Parks Department. Mr. van der Breggan was on leave in this country in the spring. In his present post he is in charge of seven gardens including the Prime Minister's. All the gardens are part of a large estate which has a considerable history attached to it. (See also Awards.)

Fann-Chin-Yong (1968). The last word we heard was that he was busy on a display of bedding which had been arranged for Princess Alexandra's visit to Singapore. The scheme included the use of Geraniums, Lobelias and Alyssum.

H. Hall (1933) wrote in during March—"My retirement keeps me as busy as ever in my own garden of almost two acres". Mr. Hall left Kew to take up the post of Curator of the very famous Darrah Collection of Cacti and Succulents. He resigned from this post in 1947 after demobilisation from the R.A.F. and stayed at Kirstenbosch until he resigned last year. He wrote—"A visit to Tresco plus a year at La Mortola in 1931-32 helped me to decide to live in ideal pleasant surroundings".

C. Hart (1966) was promoted to Field Technician at the Department of Agriculture (Vegetable Research Station), Medina, W. Australia, in May of this year. He wrote—"I married a Bideford (Devon) girl in 1968. She was a schoolteacher. We emigrated in December, 1968, and now have a son—Andrew James Hart."

R. T. Harrison (1962) moved to West Bromwich as Deputy Parks Superintendent in September, 1968.

J. D. Higham (1963) has been appointed Technical Assistant, Stoke-on-Trent. (See also Awards.)

C. Hindmarsh (1968) is enjoying his course at Newcastle University as a post-graduate. He was unable to take the N.D.H. Final as the date conflicted with the birth of a son. Congratulations, Mr. and Mrs. Hindmarsh.

H. R. Horsfall (1958) was promoted to the position of Deputy Parks Manager at the London Borough of Brent in May. Previously he held the post of Chief Technical Assistant in the London Borough of Bromley Department.

Dr. J. Hutchinson (1948) we are pleased to say is in very good health and attends the Herbarium regularly. 9th April, 1969, was the 65th anniversary of Dr. Hutchinson's arrival at Kew. His book—*Evolution and Phylogeny of Flowering Plants* (published by Academic Press, London and New York, 1970s.) was published this year. The fine coloured illustrations on the cover are also the work of the author. Dr. Hutchinson has written and illustrated the book in further elaboration of his previously published works, *The Families of Flowering Plants*. There are over 550 illustrations.

P. Jakobsen (1957) has returned from Denmark. He has been working with Eric Lyons on the Span Housing Scheme. Some of his work is at Walton, at Byfleet and at New Ash Green, Kent. He has now set up in private practice.

Dr. Keith Jones was appointed Keeper of the Jodrell Laboratory in succession to Dr. C. R. Metcalfe, with the rank of Senior Principal Scientific Officer on 11th September, 1969.

Mr. F. P. Knight (1929), President of Kew Guild 1967/68, retired from the post of Director at the Royal Horticultural Society's Garden, Wisley, at the end of last October, after holding

the position for almost fifteen years. To mark the occasion, and to wish Mr. and Mrs. Knight a happy retirement, a farewell gathering was held at Wisley, attended by R.H.S. staff, members of the R.H.S. Garden Club, and by Mr. James Bruce, who represented the Edinburgh Royal Botanic Garden Guild. At this function, Mr. Knight was presented with a cheque which had been donated by his numerous colleagues throughout the horticultural world, by his successor as Director at Wisley, Mr. C. D. Brickell.

T. D. Maitland (1910), President of the Kew Guild 1954/55*, wrote in during December with the news that he is now residing with his son, Mr. D. I. D. Maitland, who is Britain's Ambassador to Libya. Once again Mr. Maitland is in Africa—he left Kew for Africa in February, 1910, when he took over as Curator of the Botanic Gardens, Calabar. He retired in 1931 after 22 years Colonial Service.

W. Lewis (1964) has taken up farming with a relative. He writes—"I don't think that I will ever like working with sheep and bullocks as much as I did with Rhododendrons and Camellias".

K. McCreadie (1929) was due to retire as Chief Parks Officer, County Borough of Southend-on-Sea in April, 1970, a position which he held for 18½ years. He was previously employed as Parks Superintendent at both Torquay and Hove. Earlier he held the post of Deputy Superintendent of Parks and Cemeteries at Bournemouth for nine years. Prior to this he was employed in Manchester Parks Department after leaving Kew in 1929.

B. G. McKarry (1969), who commenced as a student on the three-year course in October, unfortunately could not continue owing to ill health. We wish him well in his new post as Landscape Foreman at the Vine Nurseries.

O. D. McLaughlin (1966) has taken a post as Nursery Manager with a new horticultural firm in Bermuda.

R. C. McMillan (1928). On the 5th May, 1969, Mr. R. C. McMillan retired on age limit from the position of Director of Parks in Manchester after 21 years service. He had received his early training in Ireland, starting as a gardener's boy before attending the Agricultural College at Glasnevin. On leaving College he became a student gardener at the Royal Botanic Gardens at Kew and then started his Public Parks work with the Glasgow Corporation. At the age of 29 he became the youngest Parks Superintendent when he took over this position for the Burgh of Airdrie. Later he moved to a similar position in the Royal Burgh of Kirkcaldy before coming to Manchester in 1948. At a function held at Platt Fields Park Cafe on the 1st May Mr. R. A. Bee (1953), the Director Designate, made a token presentation of a desk, garden shed and garden table. Several members of the staff spoke in

* *K.G.J.* 1954, p. 176.

appreciation of the work which he had accomplished in Manchester. Mr. McMillan responded suitably and stated that his only regret was that the Department was too big for him to have known all the staff personally.

Dr. Charles Russel Metcalfe, President of the Kew Guild 1960/61, retired from the post of Keeper of the Jodrell Laboratory on 11th September, 1969. He attained the status of Keeper in 1946 and was promoted to the rank of Senior Principal Scientific Officer in 1954. On 20th August Dr. Metcalfe was presented with a silver rose bowl by Sir George Taylor, the Director, on behalf of his colleagues in the Herbarium, Museums, Gardens and Director's Office. At a private and informal sherry party at the Jodrell at the end of his last day at Kew he was presented with a portrait of himself drawn by Juliet Pannett and a cheque for £100 as a mark of esteem from the Jodrell staff, research visitors and close associates of the Jodrell. At this time Mrs. Metcalfe was presented with a beautiful bouquet made for the occasion by Mrs. Ursula Summerwell of the Decorative Department. On 15th August Dr. and Mrs. Metcalfe flew to California and thus he was able to attend the International Botanical Congress at Seattle. He was Honorary Vice-President of the XIth International Botanical Conference at Seattle. He has also accepted a Visiting Professorship at the University of California, Los Angeles, from January-March, 1970.

A. J. Mitchell (1963) has been promoted to Divisional Superintendent, No. 2 Division, City of Manchester Parks Department, from the post of District Parks Superintendent at Brookdale Park.

R. A. Nicholson (née Rachel Ann Floyer) wrote in recently—
 “We are still living in Tanzania, where my husband works in the Government Medical Service, at present in Mberza, near the Zambian border. We now have four children, a boy and three girls, aged 8-3. I manage to fit in a little horticulture sometimes and since being in Tanzania have designed a small park in Moshi, a hospital garden in Mtwara and am at present trying to improve the Mbeza Hospital grounds. I am also managing to collect a few plants for the East African Herbarium.

P. A. Nutt (1953) is enjoying life at Longwood Gardens, Pennsylvania. With his own house he is busy trying his hand at carpentry. In his own words — “The Kew Guild meeting of America in September was more lively than usual”.

J. O'Connor (1966) is now in charge of a rural studies department at Wem, Shropshire. His aims are to build up the horticultural unit and to landscape more of the school. On the studies side he is including instruction on ecology and wild life, for the area is an excellent one, being on the Welsh Border with mountains, lakes and a large peat bog to add variety to the habitats within reach.

A. P. Paterson (1958) was promoted to Senior Lecturer in Rural Studies and Education at Culham College, Nuneham Park, Oxford, in September, 1967. Previously he had been lecturer at Culham for five years.

A. Pedley (1959) was appointed as Parks Director at Royal Leamington Spa on the 1st October, 1968. Previously he was Science Master at Heamoor County Secondary School, Penzance, for three years.

B. Penberthy (1967) was appointed to the position of Rural Science Master at Heamoor County Secondary School, Penzance, Cornwall, in September, 1968.

C. Popham (1964), who was the Head Gardener for the University of Essex, Wivenhoe Park, near Colchester, for over five years, took the post of Assistant Superintendent of Grounds, Bristol University in January, 1970.

George H. Pring (1906), Superintendent of Missouri Botanical Gardens for over 50 years, now makes his home with Dr. and Mrs. Russell Seibert. Dr. Siebert is the Director of the Longwood Gardens and Mrs. Siebert is Mr. Pring's daughter.

A. Rich (1967) was appointed as Technical Assistant to the County Borough of Warley in June. Previously he held the position of Assistant at Cardiff Parks Department, for six months after attending the Park Administration Course at the Grotto.

A. V. Rippon (1956) left Durban Parks Department in December and is taking up private landscape work.

S. J. Roberts (1928) retired on 30th June, 1969, from the position of Superintendent of Parks, Parc Howard, Llanelly, South Wales. We wish him a long and happy retirement.

K. Robinson (1965) was appointed as Design Assistant to the City of Liverpool Parks and Recreation Department in November, 1966. Previously he was Landscape Assistant for one year with the City of Manchester Parks Department.

T. Sargeant (1912), President of the Kew Guild 1955/56, has moved his home to live near his son where he is making a new garden. He assures us that he and his wife, both nearly 80, are enjoying good health. Mr. Sargeant sends his best wishes to all younger generations now at Kew.

I. L. M. Shepherd (1968) was appointed to the position of Assistant Architect at Skelmersdale Development Corporation, Lancs., on 30th September, 1968. He also had the good news that his wife, Rosemary, gave birth to a son just before he left Kew as a student.

A. R. Smith (1967) was appointed Horticultural Assistant at the County Borough of Warley on 14th April, 1969. Previously he was a student at the College of Parks Administration. Mr. and Mrs. Smith now have a daughter, Catherine Ruth.

G. F. Smith (1968) secured the post of Curator of the Pukeiti Rhododendron Trust, Okato, Taranaki, New Zealand. With his wife, Sue, he spent three months in Auckland, where he was in charge of a large tropical display house in the main park before taking this post. They find the beauty and surroundings at Pukeiti very exciting. He wrote—"If you can imagine 900 acres of rain forest sitting between two ranges of hills, the sea to one horizon and the volcanic peak of Mount Egmont five miles away in the other direction, snow-capped all the year round, you will see what attracted us to the place. I have never seen Rhododendrons grow so well as they do here, with 130 inches of rain a year and only a few frosts to contend with. We are very cut off here with 13 miles from town and our nearest neighbours five miles away. We have to go $1\frac{1}{2}$ miles for our mail". A worthwhile journey when Mr. Smith finds his *Journal* waiting to be picked up!

Miss Elizabeth Stevens (1969) left Kew to join the N.A.A.S. as trainee horticultural adviser (*KGJ* 1968, p. 891). She states that Luddington Experimental Horticultural Station, to which she is posted, is one of the largest experimental stations in the country with 230 acres of top and soft fruit, vegetables, cereals and glass-house crops. In her recent letter she continues—"As a 'new entrant' I have visited other experimental stations, been on an induction course (to find out exactly what I had joined and how difficult it was to get out). The course I enjoyed most was the soft fruit refresher course which was held at Cambridge. In the first year of the training period I was regarded as supernumerary, thereby having the opportunity of working with anything of interest as it occurred. The Director gave me a project to do on lettuce herbicides, which is where my limited knowledge of British weed flora came in useful! Other jobs have ranged from grading rose rootstocks, placing temperature probes in a 70-ton red beet clump, soldering thermo-couple wires, grading tomatoes, to drawing up plans of experimental and soil maps, attending meetings and speaking at Open Days, etc. I have enjoyed my first year back in commercial horticulture and look forward to next year with great interest".

D. T. M. Storer (1959) took up the appointment of Deputy Director of Parks to Wrexham Rural District Council on 17th November.

Miss P. C. Tietze (1968) unfortunately had to give up her studentship at Kew for health reasons. She is working with Richmond Parks Department.

Mr. C. C. Townsend spent May in the U.S.S.R., including a visit to Tashkent.

J. Warrington (1962) is heavily involved with a monthly series on Zambian wild flowers. He is supplying the text and colour photographs. He holds the post of Landscape Designer with a mining Company. He writes—"The main problem is water, or rather lack of it during the dry period. The gardener becomes an authority on irrigation and more important, conservation. The compost heap is as important as one's family almost, because the oxidation of organic matter is rapid to put it mildly. Soils soon become exhausted and dust if one ignores this".

P. E. Wilson (1966) took up the post of Supervisor of Gardens at Messrs. Williams and Partners Croydon, Surrey, on 1st October, 1969. Previously he held the position of Assistant Nursery Manager at Southend Parks Department for two years. (*KGJ* 1968, p. 891.)

K. Woolliams (1963) who is Curator of Lae Botanic Gardens, New Guinea, has recently spent some time in Japan. (Please see *Wedding Bells*.) While there he found time to collect seeds of several items for Kew.

NOTES ON THE BIRDS RECORDED IN THE GARDENS AND VICINITY DURING 1969

Little Grebe, one pair bred during the summer with one in the first brood, two in the second. Cormorant, one to ten seen along the river and Syon Park tree-roost. Twenty-seven seen on this roost on the 20th December. Herons were seen regularly opposite to Isleworth Gate on the foreshore of Syon Marsh. One was mobbed by Carrion Crows in the Palm House Pond area. Of the Mallards, three-quarters of the young were lost through Carrion Crows. Scaup, one drake seen from 19th-21st October. Tufted Duck, only seventeen ducklings reared out of fifty hatched owing to kills from Carrion Crows. Pochard, two broods seen. Canada Geese, they did not breed in the Gardens.

Kestrels, a highlight, two well-grown young birds were seen and heard calling for food on a dead beech in the Cottage Grounds. Pheasant are at times plentiful and several broods were seen. The average was three in a brood. A Woodcock was seen by Oak Avenue on 9th April. Also two Common Sandpiper were seen flying along the river to alight on the foreshore of Syon Marsh. Moorhens and Coots are common on the lake and pond areas. Lapwing have been seen flying over the Gardens from time to time, alighting mostly on Syon Marsh. Approximately fifty flew over Syon Marsh on 1st August. Later in the month there was a flock of approximately one hundred and fifty in this area. but they were disturbed by shooting.

The Black-headed Gull is numerous in winter on the Palm House Pond. It has also taken to frequent the Large Lake. One Herring Gull was observed between 15th-19th July making a good living of the smaller fish on the Palm House Pond. One or two

Lesser Black-back Gull were also seen in the spring and winter on this pond.

Wood Pigeon is a common breeder while a Collared Dove was seen and heard on 14th April. It flew from the Rhododendron Dell toward Syon House. The Cuckoo was heard on 22nd May, but it is becoming scarce in this area. One Tawny Owl used an old Blackbirds nest at the back of Cumberland Gate. The Swift bred in the vicinity of the Gardens.

The Green Woodpecker was much in evidence during the spring and was heard calling in various parts of the Gardens. Three immature birds were seen in the Cottage Grounds on two occasions. The Greater-Spotted Woodpecker is believed to have bred, being seen and heard frequently. The Lesser-Spotted Woodpecker made a brief appearance during October.

The Swallow hunted for insects over the Lake but the Sand Martin was scarce, only a few being seen. The House Martin breeds in the vicinity and over a hundred have been seen over the Lake.

Carrion Crow are on the increase. Over sixty have been seen on the foreshore by Isleworth Gate. Three Magpie were seen and are believed to have nested in a Scots Pine by the Lake. In June a young bird was seen but was later found dead. This is the first record of the bird having nested in the Gardens. Jay, young broods seen. Jackdaw, breeding in Richmond, have flown over the area.

The Great Tit breeds but the broods become depleted. The Blue Tit is successful and the Coal Tit even more so. One Marsh Tit was seen by the Temperate House during October. There were at least two pairs of Long Tailed Tit while a group were also noted in September and October.

The Nuthatch, Tree Creeper and Wren bred during the season.

Thrush, a good breeding year while the Mistle Thrush was seen from time to time. Blackbird common. Redwing were noticed flying, one or two hundred in a flock while they were seen and heard in the Rhododendron Dell. Fieldfare were seen feeding on berries in the neighbourhood of the Gardens while two flew over the Dell. The Robin is a common breeder.

Reed Warbler, Willow Warbler, Chiff Chaff, Garden Warbler and Black Cap have all been seen and heard in the river area.

Chaffinch, Bullfinch and Greenfinch are established as breeders and it was noticed that with the latter that they became more numerous where hop manure is used as mulching. Family parties of Goldfinch were feeding in Herbaceous Borders in the autumn, while Linnet frequented the King William Temple area. One Reed Bunting was heard in the reeds on Syon March. Hawfinch nested.

Other birds seen were Goldcrest, Spotted Flycatcher, Pied Wagtail and Grey Wagtail. Of course, Starling and Hedge Sparrow.

A. F. MITCHELL, *Garden Constable ; official Bird Observer.*

PLEASE, SIR, MR. KING

During the late 18th century and early 19th century a great amount of loam was transported to Kew Gardens, for Kew, as we know it today, was only just taking shape. Most of this loam came by barges belonging to the Layton family of Kew Bridge Wharf, Old Brentford.

In the account books for Kew Gardens preserved at the Public Records Office it is recorded that Mrs. Martha Layton was paid £2 15s. for lighterage of a barge of loam from Teddington on February 4th, 1804.

Q. C. and Edward Walford relate the following story about the Layton family in *Kew : Past and Present* (1884). The year was 1776, when King George III was living at the White House and accustomed to taking a walk along the nearby Thames haling-way. It was here that he was accosted by a little boy who asked him if he would want his father for lighterage. But let the authors take up the story :—

“ ‘ Please, Sir, Mr. King, I mean, father is, sir—is Mr. Thomas Layton, and he is the King’s bargeman, you know, and please, sir . . . ’ ” It was his mother’s birthday and she was going to his Aunt Sally’s to tea, but would not go without his father.

The narrative continues with the King saying :—

“ ‘ So you are Tom Layton’s son and heir, eh ? eh ? ’ ”

‘ Yes, sir, Mr. King ; and I’m Tom, too. ’

‘ Oh ! And how old are you ? ’

‘ Nearly nine. Your little boy, Edward, is just my age, mother says. ’

‘ Well, look here, Tommy ’, resumed his Majesty, smiling, ‘ you may go and tell your father that I shall not want the barge today ; neither will the Queen. . . . Run along now, little man, and ask your mother to make you *very tidy*, and come to the Palace at ten o’clock, and I will take you to see the Queen. Perhaps Her Majesty might find mother a birthday present. ’ ”

The narrative concludes with young Tom meeting the Queen at the Palace (the White House).

A later member of this family—another Thomas Layton—will always be remembered for building up the finest collection of Celtic and Roman relics ever made in this country.

He was known to every bargee and wharfman on this stretch of the Thames, so that practically everything found was first taken to him. To ensure that he was in the forefront for news of any finds he paid well for these treasures.

He had hoped to found a museum at Brentford after his death in 1911, but this was never found possible. For a long time this huge collection was stored in tea-chests at Brentford Public Library, but it has now been removed to the London Museum. Let us hope it will not be long before these relics have been conserved and studied and put on public view.

JOHN L. GILBERT.

GARDENS POLICY

The following explanation of Gardens policy written by Mr. Shaw, the Curator, appeared in the May copy of *Newsletter*. As a response to his suggestion that it would be of interest to Guild Members, we publish his account in full. This account was intended as an answer to the rumours of the Gardens closing.

"Where Have All the Flower Beds Gone"

Sunday Times, April 27th, 1969, page 58. Maurice Wiggin in "Television" says: "How culpably frivolous, how irresponsible and capricious, how peripheral and self-indulgent . . ."

He may well have been speaking of the situation at Kew which has prompted some local people to ask "Kew Gardens to Close?" and "What *IS* going on?"; a situation which on Sunday interested the national press sufficiently to question the Ministry of Agriculture, Fisheries and Food.

Apart from the evident and innocent changes occurring in the Gardens, upon what knowledge do the enquirers and others outside of the Royal Botanic Gardens, Kew, base their fears? Have members of the R.B.G. staff, individually unsure of policy, commented irresponsibly abroad? How else can rumours, and rumours they are, arise?

What precisely has happened in the last season or two? Very briefly, but still precisely (I am ready to qualify or amplify any statement made here, on request), a number of small, fussy, irrelevant, badly conceived, badly sited flower and shrub beds have been removed, and a number of diseased, spent or replicated shrubs and trees scrapped. Apart from such routine garden operations—for remember a good garden must always be in a dynamic and never a static state—one major alteration, the removal of the Clematis Wall was carried out. The decision to remove the Wall was reached after some years of deliberation and ultimately because this feature failed horticulturally and botanically and as it was not, in the eyes of experts, a creditable part of the Kew landscape, this was the logical outcome.

Mr. Everyman thinks he is a gardener these days (thanks in part to Percy Thrower and television) as he feels competent to resolve world problems like Vietnam, Biafra, immigration, and the balance of payments, but how mistaken he is! Gardening has become a scientific and highly industrialised business and there are problems and pitfalls not evident to the ill-informed critic.

Modern techniques brought about by economic pressures and diminishing numbers amongst loyal and skilled craftsmen demanded mechanisation and automation. It is therefore essential to modify the Gardens to maintain the high standard of cultivation expected of Kew, and to fully exploit available mechanical and automated processes. Small, fussy, often incongruous beds have no place in a modern large garden, except perhaps in very special and specialist areas (e.g. Palm House front, the precincts of the Conservatory and the new 17th Century Garden) where the strict formality of planting schemes has some alliance with the architecture nearby.

Large motor mowers cannot negotiate small circular or rectangular plots and the grass edges of such beds, requiring regular attention during the growing season, and the soil they contain, reach astronomical figures when considered, work-study-wise, in lengths and areas. How many miles of lawn edges are kept clipped at Kew and how many acres of flower beds are weeded and cultivated by hand? But how much can they be reduced in this age of doubtfully skilled and highly priced labour? Are there in fact sufficient skilled staff at Kew to which such work can be entrusted, where a skilled gardener is obviously underpaid in an age where high wages are the order of the day? These are but a few of the questions to be asked—and answered—from an economic viewpoint.

Consider now the aesthetic angle. On no occasion, despite all the "despoliation" has there been lost in Kew a single species or cultivar. There have always been replicates elsewhere in the Gardens, and generally, if not always, in better condition and more intelligently sited than the specimens destroyed.

Any landscape architect will insist that scale plays a most important role in garden design. The larger the garden the grander and bolder the scale, and surely there was no consideration given to scale when the beds now grassed down, and many more existing beds—in the Azalea Garden for instance—were created. Where were the protests when vistas were impeded, and when these intrusive beds were cut into spacious lawns thereby fragmenting them into less worthy and meaningless segments of grass? There is often a need for flower beds or shrub borders, but they must not be sited to offend the eyes. A reasonably sited border may easily become grossly out of place as surrounding vegetation matures and then it must be abandoned or altered.

"Kew Gardens" have recently been described as "a unique spot" and there are many others who would agree with this comment, but what makes Kew unique? In the presence of Wisley, the Savill and Valley Gardens, Kensington Gardens, Regents and St. James' Parks, and many other notable pleasure gardens it certainly is not its formal bedding schemes, its rose beds, its seasonal displays of pelargoniums or tulips, or indeed the proliferation of small flower and shrub beds. Surely it is the fact that Kew is primarily a scientific establishment with a rare and vast collection of living scientifically interesting plant material. At least that is the Gardens' claim for its share of Kew's fame. Again, to answer local fears about the gardens "visited by people from all the world over", Kew's universal appeal lies primarily in its scientific collection of tropical, sub-tropical, and temperate plants including such specialised sections of the plant kingdom as the orchids, cacti and succulents, palms, and ferns, its unique and much studied collection of herbarium material, the wealth of knowledge recorded in the Library, the information and expertise provided by research teams in the Jodrell Laboratory, the rare and fascinating acquisitions of the Museums, the antiquity of the

establishment, and in a secondary way the aesthetic appeal provided by fine buildings, lakes, vistas and glades amongst uncommon plants and trees.

The Royal Botanic Gardens, Kew, are first and foremost a scientific establishment. They have by tradition an amenity role to play to British and overseas visitors but the collections themselves provide amenity features if they are well grown, sited, displayed and documented.

The association of species like *Arbutus* spp., *Gaultheria shallon* and *Mahonia aquifolium* ("Strawberry Tree", "Shallon" and "Oregon Grape" to the lay) in the borders near King William's Temple, from an aesthetic point of view, can hardly be bettered, unless by the delightful and much admired combination of *Hamamelis* spp. and *Pachysandra terminalis* nearby. These are fine examples of scientific material aesthetically well placed; examples which contribute with such features as the Palm House, Heath Garden and the Japanese Gateway to the description "unique".

I am convinced that the Gardens' functions are threefold: to provide material for scientific study; educational exhibits; and ornamental features, in that order, and that the scientific material which should not exclude certain hybrids and cultivars can be adapted to cater for all tastes. Adaptations and changes are inevitable in any garden and those now in dispute have the full authority of the Director and are merely continuing the policy which has been followed for years. Let our critics begin to worry when there are no changes about which they can comment.

R. L. SHAW, *Curator*.

THE RUMOUR CONCERNING THE CLOSURE OF THE GARDENS

During the early part of the year reports and rumours were freely circulating that the Gardens were to be closed to the public.

The following account of the development of this extraordinary rumour appeared in the *Gardens Newsletter* for June, 1969:—

In our May edition we referred to the reports which had been circulating about the closure of the Gardens and the fact that a month later they are still around indicates both how deep rooted they were (perhaps still are) and how gullible people can be. The onslaught of questions directed to Kew has been quite extraordinary.

It has been said that a Surrey local paper—not in this immediate district—first came out with the story some time ago but it was not until March that we at Kew became aware of the rumour when a group of local people wrote to ask for information about changes in the Gardens. Organisations such as Kew Gardens quite frequently are the subject of strange and erroneous talk and the inquiry was treated as any other of the like with a firm denial.

Towards the end of April a local organisation distributed in the district a leaflet which, while quoting our denial of

the rumour, seemed to suggest that some doubt still remained—at least it appears that was the general interpretation. On Sunday, 27th April, the rumour came into the open, one national newspaper giving it front page coverage. It was an extraordinary article of a type likely to be accepted as fact and stating that the Government was considering closing Kew within five years and transferring our research departments to another centre.

By lunchtime that morning our Ministry had issued an official denial which was broadcast on the B.B.C.'s one o'clock news bulletin while Kew staff both at the Gardens and at home dealt with press and other inquiries with the same firmness, but the rumour had got a hold and the Ministry's and Kew's denials fell on stony ground. The flood of protests, inquiries, demands and suggestions began.

On Wednesday of that week a categorical denial was given by the Minister in the House of Commons but this received little publicity outside partly since, because of an industrial dispute, the national newspapers were not printed on the following day.

The protests took almost every imaginable form. Questions in Parliament were put, the names of the Leader of the Opposition, a Government Whip and our local Member being included among them. Inquiries were directed to the Minister and a Petition was presented to H.M. The Queen on the subject. The Conservatives were exhorted to fight the Government's proposals tooth and nail. These all found their various ways to Kew through the appropriate official channels and were duly handled in accordance with protocol. At the other end of the scale correspondence, telephone inquiries and personal protests appeared from all conceivable persons and organisations. There was the old-age pensioner who claimed to have heard on the radio that Kew was to go over to growing vegetables to feed the starving Indians. Her main interest in the matter seemed to be that she should be sent any plants we should be disposing; she would pay postage. Then there was the person who, also referring to the world food shortage, put the suggestion that in order that they could work on the spot the Kew scientists should all be moved to Central Africa! (The Editor of *Newsletter* categorically denies that he inspired that letter!) Protest meetings were called to which Kew officials were asked to be present.

As May proceeded we hoped the Royal visit would have a salutary effect and people would appreciate the absurdity in believing a rumour that Kew was to close at the same time as the Queen was opening a new feature in the Gardens and an extension to one of our scientific departments, but two days after this event one of the big motoring organisations asked to be told when (not if) the Gardens were to close down. The Director received a letter of inquiry from an M.P. and the following week the matter was raised in the House of Lords. And so it goes on. On the 23rd May the closure of Kew in favour of vegetable growing was mentioned in the B.B.C. "Any Questions" programme and no doubt the

subject will drag on for some months. In the meantime the report has been quoted in New Zealand.

There has been one bright aspect to this matter. Throughout the weeks we have been supported by the fairness of our local press. The subject was news and it was their duty to report it fully, and report it they have, but all along they have refrained from any inclination to make journalistic capital out of the story. Our denials have been given prominence and the rumours handled in the manner their nature warranted. The subject has caused genuine distress to many people, particularly the elderly, and our local press deserve credit for the way they have handled the whole business.

In conclusion, just in case you still have any doubts, Kew is not going to be closed to the public and neither are our scientific colleagues going to be sent to darkest Africa. Attractive though the latter idea may be at first sight we like them really and we should miss them!

REPORT OF THE GARDENS' DEPARTMENT

(We regret that we are not able, through lack of space, to publish the full report)

The Gardens' Enquiry Office

The Gardens' Enquiry Office at Kew (perhaps more popularly known as the "Curator's Office") has now been permanently manned for just over two years by staff intended to deal with the many telephone, written and personal enquiries directed to it; and it is to be hoped that the establishment of the post concerned will already have lightened the burden on Assistant Curators and their staffs previously borne by them, when public enquiries had to be channelled direct to their departments. It is one aspect of the work of the Enquiry Office to stop all but urgent and personal telephone calls from going any farther, and, except when calls are put directly to Assistant Curators from the switchboard, the departments of the Gardens should no longer be troubled by minor questions from members of the public and other establishments.

The number of letters sent out to the specialist horticulturists for their expert advice is also gradually being reduced, as indexed cultural instructions are compiled from replies to public enquiries; but the corollary of providing an efficient answering service to the public is that more people come to hear about it, and the actual numbers of enquiries of all three types consequently show a considerable increase. The following table of numbers does not include letters or telephone calls dealt with personally by the Curator or Deputy Curator:

Horticultural (and directly related) Enquiries

	Letters sent out	Telephone enquiries answered by telephone	Personal enquiries dealt with (visitors from outside Kew)
1968 ...	1,750	842	294
1969 ...	1,958	1,303	409

Non-horticultural enquiries during 1969 have amounted to 366 visitors from outside Kew (season tickets, commercial representatives, people with appointments with various members of staff, etc.); 312 general telephone calls from outside; 626 internal personal enquiries (members of staff coming into the office for some assistance or information); and 1,700 telephone calls from within Kew: there have also been 800 calls outwards from this office. (These figures taken at 22.12.1969.) The writer of this article has picked up the telephone over 4,100 times this year, and is still without a telephone on his own desk!

J. KEESING.

Decorative Department

One of the major undertakings by this Department was the completion of the Queen's Garden for the official opening by Her Majesty The Queen on the 2nd May (see full account in special supplement).

A considerable amount of work and alteration has taken place in the Duke's Garden. The Lilac border has been renovated and the Hellebore collection improved by the removal of large numbers of self-sown seedlings of doubtful parentage, replacing these with correctly named species. Further planning which will improve the appearance of this delightful area will also allow easier access for tractor and trailer. The installation of pop-up sprinklers will save time and labour.

Labour saving changes have been considered an essential feature of present and future planning within the department. Thus a number of rose beds have been removed along the perimeter of the Rose Garden while an extension of the metal edging facilitates maintenance. The installation of an irrigation system on the beds on either side of the Broadwalk has been completed and has been in use for one season.

Some alterations including paved areas has been made in No. 4, the Conservatory House, in order to smooth the flow of traffic and to reduce the numbers of pot-grown plants without detracting from the overall display.

The developments in the Lower Nursery continue as this becomes a major glasshouse area. A large and modern boiler house has been completed and is in use to serve this area while a new accommodation building is planned for erection during this winter. If all goes according to plan the scheme will be completed next year when the remainder of the scheduled glass-houses are erected.

B. HALLIWELL, *Assistant Curator*.

The Temperate and Palm House Department

In an effort to make the best use of labour by introducing efficient and useful systems of automation an irrigation system is being installed. A new pumped rain water supply has been installed to each of the ten beds with additional taps. It is intended to fit sprinklers to this new system and when complete, the

laborious task of watering beds and damping-down manually will become outdated and unnecessary.

During the summer a propagation programme was put into effect in order to replace the old pot plants standing on the benches and gratings. Many of these plants have become unsightly as the result of continuous pruning which has been necessary to restrict them to the space available.

There has been some reorganisation of the large plants growing in the beds. Among the specimens planted out were *Pandanus lais*, *Pandanus utilis*, *Cocos nucifera* and *Pritchardia pericularum*. Among the interesting plants which have been put into larger wooden tubs were *Encephalartos longifolius*, *Encephalartos lemannii* and *Cycas siamensis*.

Of the plants which have flowered during the year is *Gardenia thunbergii*, a species which blossomed in the Palmhouse in June for the first time. *Theobroma cacao*, a mass of flower only set one pod. Among the Cyads, *Dioon edule* and *Dioon pectinatum* both produced cones while a female specimen of *Encephalartos hildebrandtii* was actually induced to set seed. A male plant of this species flowered first and the collected pollen was stored in the Jodrell Laboratory and used to pollinate the female which flowered a month later.

Temperate House

One of the major developments has concerned the erection of a permanent exhibition stand in the South Octagon. Here, in co-operation with the Museums Department, Herbarium and Jodrell Laboratory, displays will be set up which require actual growing conditions which do not prevail in the museum buildings. The first exhibit opened on the 1st December, 1969, and was entitled "Plants and Their Environments".

As in the Palm House, irrigation systems are being installed and perfected with the intention to reduce the time spent on manual watering and damping down as much as possible.

Changes are taking place in the Temperate House Pits in order to modernise this section which has to cater for the needs of the Palm House as well as the Temperate House. The old low pits have been demolished, making way for improvements including an extension to the existing large house and a new "Frampton-Ferguson Q22", single span aluminium house, 73 ft. x 23 ft. This will be installed with automatic ventilation, capillary benching and M.B.F.R/U (mercury-vapour) lamps.

C. M. ERSKINE, *Assistant Curator.*

Tropical Department

Tropical Pits

The process of modernisation continues and four more houses have been fitted with capillary bench watering. Experiments have also been carried out with a glass substitute in order to find a means of reducing the cost of replacing broken glass, but so far these are inconclusive.

T. Range and Orchids

Theft-proof glass panels have been installed in the Sherman Hoyte and Insectivorous houses to protect the collections on the stages which in the past have suffered from the attentions of a section of the public. The South African Ericas have been moved from the Cape House (No. 7) and are now planted out in a landscaped setting in the cool end of the old Economic House (No. 12). House 7 is now furnished mainly with *Gesneriaceae* and some of the epiphytic members of the *Cactaceae*. Use has been made of trellis-like structures and simulated "cliffs". In the course of time the remodelling policy will be extended to the neighbouring houses 8 and 9 where orchids will be displayed under more natural conditions. House 11 (next to the *Victoria amazonica* tank) is at present being laid out in a landscaped style to house the collections of Bromeliads and *Hoya spp.*, the former are at present in House 1.

Fergeries

In order to meet the needs of an ever-growing collection and to replace the old pits in the Fergeries yard, a large Frampton-Ferguson house (Type M.44) is being erected in the lower nursery. This house measures 44 ft. x 98 ft. It is to be glazed with diffusing glass which it is hoped will provide a better environment for the ferns. It will let in the same amount of light but it scatters the rays and does not increase the leaf temperature as much as would clear glass.

The heating system in House No. 1 is being modified and this involves conversion to small bore piping from the old 4-inch type and the installation of circulating pumps and motorised valves.

It is divided in three compartments (55° F, 65° F and 75° F) each fitted with separate environmental controls, viz. automatic heating, ventilating, damping, and watering as well as mist propagation and artificial light (MBFR/U lamps).

Dispatch Section

Over the past three years the work handled by this section has gradually increased and over 200 parcels have been sent out, mainly to overseas establishments.

Protective Clothing

Dangerous chemicals are sometimes used to combat pests and diseases. A new type of protective clothing is in use to give the operator complete protection, not only to the body but to the lungs. Essentially the equipment is made up of an air-conditioned blouse and hood. The air is pumped to the operator through a plastic hose from a mobile electric pump which is positioned outside the house. The operator also has plastic trousers and gum boots with rubber gloves to protect the hands. This equipment was illustrated in use on the front cover of the *Gardeners' Chronicle* and referred in December, 1969.

S. W. RAWLINGS, *Assistant Curator.*

Alpine and Herbaceous Department

The Rock Garden

With the completion in 1968 of the reconstruction work which greatly enlarged the planting area of the south-east side of the rock garden, only the section on the south-west side remained of the original limestone. Much of this required a great deal of urgent work if it was to be maintained successfully.

There was and still is no possibility of the work of rebuilding in sandstone being able to continue in the near future. Over the whole section the soil was in a poor condition and much of it infested with two very pernicious weeds *Calystegia sepium* and *Sonchus arvensis*. Therefore it was decided the only practical approach to the problem was to clear the site and grass it down for a reasonable period, with the object to eradicate these troublesome weeds.

During this winter resoiling of areas, constructed some ten or more years ago is well in hand. The value of this can be seen on areas reconstructed during the last four years. Here can be seen a flourishing group of *Carlina acanthifolia*, a plant we have tried for many years to establish and this applies to many other plants.

Chalk Garden.

For many years the problem of deep rooted pernicious weeds such as *Convolvulus arvensis*, *Campanula rapunculoides*, *Cirsium arvense* and *Polygonum cuspidatum* has been an acute one on this chalk bank, such that any reasonable standard of maintenance has become impossible, and many of the true chalk plants have been lost. The use of herbicides apart from being impracticable, has not given any measure of success. There was no alternative but to clear the site and follow the same procedure as in the rock garden. Some of the chalk-loving plants have been saved, and will be replanted as soon as it is evident that the weed problem is under control.

The Natural Order Beds.

The primary role of a Botanic Garden is to build up and maintain a genetic pool of plant material. As such it should preferably be from a known wild locality, supported by full and adequate records. Much thought and work is now being directed to achieve this ideal over a relatively short period of time.

Alpine House.

By gentle forcing, some twenty species of *Fritillaria* in pans were brought into flower by the end of March, enabling us to make a much appreciated contribution to a co-operative exhibit of the genus staged by the Lily Group of the Royal Horticultural Society at Vincent Square on 1st and 2nd April, 1969.

The Alpine Yard.

As a great deal of time and labour is absorbed by hand watering, especially during late spring and summer, trials of auto-

matic watering will be carried out during 1970. For this purpose it is planned to have capillary benches installed in two plant houses, 24 and 25A, also the installation of a small mist unit, to assess the practicability of mist propagation with alpine subjects.

Woodland Garden.

This section of the department continues to be an attractive feature, although many of the American hybrid lilies have been found to lose vigour and some fail completely in three or four years, these we are not attempting to renew. Greater emphasis and attention is being given to maintaining the species collections; some replanting is being done this autumn and a few of the old and unhealthy Rhododendrons are being discarded. On the afternoon of the 14th July to see the lilies at their best, a visit was made by a large and distinguished party of lily enthusiasts of world-wide fame, who were attending the Fourth International Lily Conference, organised by the Royal Horticultural Society.

ALAN COOK, *Garden Supervisor.*

Reorganisation of the Arboretum Departments

The North and South Arboretum Departments were reorganised and this took effect on the 1st January, 1969. The aim was to divide the two departments more evenly, and as a result the boundary between the two was fixed to run down the centre of Syon Vista, on to the south side of the Holly Hedge bounding the Rose Garden, along the south bank of the Palm House Pond, to the Museum. Taking effect at the same time, the Machinery Department was also transferred to Arboretum North.

Genera of Hardy Trees and Shrubs Verified, Wholly or in Part

A definite programme for plant verification has been undertaken in close co-operation with the Herbarium. As a result all the trees and shrubs of 31 genera have been checked and verified. Briefly the policy is that a restricted number of genera are selected each year for checking, in preference to a randomised selection, when it becomes difficult to make any clear progress.

Card Index

The conversion to the new records system has been going ahead. In order to make this as accurate as possible, each entry number is being checked against the records kept in the main entry books and discrepancies rectified where this is possible. So far the records of the whole of the Conifers and one-third of the Tree and Shrub collection have been converted to the new card system.

Pests and Diseases

Fire Blight (Erwinia amylovora). The organism *Erwinia amylovora* causing the condition known as Fire Blight continues to be a nuisance among the pomaceous Rosaceous trees and shrubs. The *Crataegus* appear to suffer most, but at least the attacks were not

continuous, the outbreaks being sporadic. With the assistance of Dr. Dring, the collections have again been inspected at weekly intervals during flowering and the early part of the growing season.

Scale Insect (Pulvinaria sp.). For the third year running this species of scale insect which has suddenly come to the fore, has been widespread over the trees in the Gardens, but the degree of infection has been light. To a large extent it occurred on the *Aesculus*, *Acers*, *Cornus* and *Tilia spp.* As in previous years they seemed to disappear after mid-summer and were possibly eaten by birds.

Completion of Seed Store

The equipment of the new seed store and bank has gone ahead and the department as a working unit was set up in May, when a seed testing programme was established and put into effect. With the new cold store operating at -10°C , a start has been made in the establishment of the "seed bank" which was envisaged. In the first place this was made up of existing stocks, but with the new collections which have been made from carefully selected trees, shrubs, herbaceous plants, and annuals a nucleus has been gathered, cleaned and stored which will be built up over the years.

For the first time the seed room staff have operated as an independent unit and although they are considered as part of the gardening staff, the general policy is decided by a working committee which consists of the Chairman, Dr. Thompson of the Jodrell, Mr. D. R. Hunt of the Herbarium, Mr. G. E. Brown, Assistant Curator and Mr. J. Mateer, Supervisor in Charge of the Seed Room Staff. This is the first attempt at Kew on a project involving the co-operation of three departments—the Herbarium, Jodrell Laboratory and the Gardens. To departments which are by the very nature of their work closed and watertight, the experience has been a strange and often difficult one, but the results have been rewarding. The seed room staff have done well, mastering new cleaning techniques involving compressed air on dry seeds and atom mixers on the moist ones. In addition many months have been spent preparing the new seed lists. Based on this, new additions were started in July and the new department was responsible for the entire gathering from the outside collections.

Attention to the labelling of the entire tree and shrub collection is also the responsibility of this department. In this field the conversion to the engraved labels has gathered momentum, and approximately 3,000 tree labels have been made and hung into position. The lead tags placed at a height of approximately 15 ft. as a means of retaining the identity of a specimen if the label is lost, have been checked and renewed where necessary.

Tree measuring (actual height and girth at breast height) is also undertaken by this department. Under guidance the students have carried out the work, and during the year the whole of the conifer collections has been completed.

G. E. BROWN, *Assistant Curator*.

Arboretum North

Camellia Border, Cumberland Gate

The Rhododendrons have been extracted from this border to allow more room for the development of the Camellias. It is hoped that in the future this feature will contain a good representative collection of *Camellia japonica* forms.

Specimen Trees

Several large trees in this section have either died or reached the end of their useful life, amongst these, it is disturbing to report the death of the *Quercus lucombeana* var. *fulhamensis*, Fulham Oak, due to the ravages of Honey Fungus. The very old lime tree on the lawn near the Crab Mound has been taken out. This tree was known for many years as the Bell Lime, as at one time it accommodated the Gardens Bell. Though of some historic interest the state and general condition of this tree was such that it had become an eyesore.

Lawn Maintenance

The lawns in this section are of a semi-formal nature but in recent years the weed population has increased to a point that they are becoming unsightly. Though it is realised that the Gardens as a whole should not necessarily have weed-free grass, it is felt that the turf in this particular area should be of a high standard. It is hoped that a carefully planned turf renovation programme will be undertaken during the next two or three years to bring about an improvement. Hormone weed killers in conjunction with balanced feeding will be used to achieve this. If practical some of the more important specimen trees will be fed with organic fertilisers to increase their vigour.

Growth retardants

Initial investigations have been started on the use of growth retardants during the past season on lawn edges to reduce the amount of labour needed for clipping during the summer. Results so far have been inconclusive and this problem will be studied during the next two or three years to ascertain if the system is feasible.

Buxus Collection

The border near Brentford Gate containing this collection has been extended and the young plants allowed more room for future development. By interplanting the Buxus with ground cover plants the area will be fully utilised and will provide a useful nursery in which stock can be built up quickly.

Rhododendron Dell

During the next few years a planned programme of replanting is to be undertaken as a preliminary measure to the complete redevelopment of this important feature. One end of the dell is at present being cleared of all poor specimens and young plants will be moved from other sections to provide the necessary material. The future policy includes the propagation of the older varieties that are of definite interest and should be retained within our collections.

Azalea Garden

Some reorganisation has taken place in this area with the removal of those beds which had become either overgrown by the surrounding trees or the useful function of the beds were questioned. New sites for this collection are under consideration, but a new feature will be established before the present plantings are abandoned. Small shrubs belonging to *Oleaceae* will also be found new homes allowing for easier access for mowing units.

Arboretum North Machinery Section

After a thorough appraisal of the machinery at Kew several important changes have been made.

The appointment of a full-time fitter has been made for the overhauls and breakdowns on mowing units and smaller machines. Tractors, vans and lorries, etc., will still be serviced by Ministry of Public Buildings and Works Maintenance Section.

R. I. BEYER, *Assistant Curator*.

Arboretum South Department

Work on the Victoria Gate Border

The Border by the boundary from the Museum by the Palm House Pond to Unicorn Gate which was planted up a few years ago, was considered to be in need of thinning. The feature had been planted up for quick effect with many hybrid *Rhododendrons*, in addition to choice subjects such as *Dianthus cercidifolius*, *Cercidiphyllum japonicum* and *Magnolia campbellii* sub. *sp. campbellii*, a vegetative propagation of the dark pink Kew form. Many of the *Rhododendron* hybrids have been removed for planting in the *Rhododendron* Dell. As a result, and by re-grouping, a variation in height and outline has been achieved in addition to the introduction of large groups of such feature plants as *Cornus alba atrosanguinea* and *Neillia longiracemosa*. A number of rare subjects have been planted up such as *Meliosma veitchiorum*, *Meliosma tenuis* and *Meliosma myriantha*.

Queen's Cottage Grounds

The policy has been continued to maintain the grounds in a natural condition. The work consisted mainly of removing Elm suckers and Sycamore seedlings in order to retain the clumps and stretches of the plantings at their original size. A number of odd *Cotoneaster* bushes have also been removed as a measure to counter the ravages of Fire Blight. The grass and bramble cuttings have been planned to provide and encourage the wild life, which has always been considered an integral part of the area. The display of *Snowdrops*, *Narcissus*, and *Bluebells* was very rewarding.

Nursery

Three large programmes have been run side by side with the result that the whole of the nursery space has been used to the full : —

- (i) Propagation for the Kew Collection ;
- (ii) Propagation for Wakehurst Place ;

and (iii) The propagation of Ground Cover Plants, both for Kew and Wakehurst Place.

(i) *Propagation for the Kew Collection*

In the main this has concerned the raising of natural source trees and shrubs from a known origin. As an example, seed of three *Platanus* has been obtained from the United States National Arboretum. In each case it was collected from a known locality. The species are—*Platanus occidentalis*, *P. racemosa* and *P. wrightii*. But in addition a number of the rare and valuable trees in the Kew Collection have been propagated, for example *Ulmus bergmanniana*. This latter species is from Central China and is very rare. Probably there are very few mature specimens in the western hemisphere. Kew has one in the collection; this year six more were successfully grafted in the nursery. Among the rare trees which were raised last year, it is pleasing to note that the much-sought-after *Aphananthe aspera* seedlings are doing well.

(ii) *Propagation for Wakehurst Place*

One of the main tasks will take several years, for it involves the vegetative propagation of selected *Rhododendron* species which will go to make a "series collection" for Wakehurst. A definite policy for propagation has been formulated for Wakehurst, "natural source" material of known origin figuring prominently in this.

(iii) *Propagation of Ground Cover Plants*

The large scale propagation of ground cover plants has taken place within the means of the department. The subjects chosen include *Sarcococca* sp., *Skimmia laureola*, *Hypericum calycinum*, *Pachysandra terminalis* and *Lonicera acuminata*. This latter subject is a Ludlow and Sheriff collection and it has proved a very fast growing, non-climbing Honeysuckle. One plant covered 36 sq. ft. in a growing season.

G. E. BROWN, *Assistant Curator*.

We thank Mr. R. L. Shaw, the Curator, for his help with this report.

THE GUYANAN EXPEDITION

Members will be interested in the news of the Guyanan Expedition, although by the time this is published the two Kew members, D. Evemy and A. G. Burgess will have returned. We hope to publish an account of this in our next issue.

Dated—4th January, 1970—"Once more Mr. Evemy and I are making ready to head into the interior. On Friday, 9th January, we will catch a light aircraft from Timehoi airport and fly south to the Rupununi District. There are no planes this week into Lumid Pau so we will instead fly into Lethem. From Lethem we will travel either to Aishalton (near to Lumid Pau) or Dadanawa. This journey will be by Landrover". Later in his letter Mr. Burgess wrote—"The members of the Guild invested in the Expedition to the tune of just under three hundred pounds".

IN MEMORIAM
FRANK GLOVER

After a full and interesting life devoted to Horticulture, Frank Glover passed peacefully away in the Aldingbourne House Hospital, Chichester, on the 24th July, 1969.

He was born in 1889 and step by step from humble beginnings, through a number of Gardens of Stately Homes, he finally came to the zenith of his aspirations when he was accepted on the staff of the Royal Botanic Garden at Kew prior to the First World War.



With his earlier botanical studies at Oxford and continued during his term at Kew, he became keenly interested in plant diseases when he was appointed to the Inspectorate of the Ministry of Agriculture. It was in this field that he became expert in identification, certifying many acres of crops throughout our Islands.

Moving from the Cambridge Division to London at the commencement of World War Two as Chief Inspector of the Horticultural Division of the Ministry, he was closely concerned with the "Dig for Victory" Campaign. His services were recognised when he was made a Member of the Order of the British Empire in 1946.

Serving in the First World War in France and Italy, he was awarded the Military Medal and the Meritorious Service Medal prior to his training for Commissioned Rank.

A major operation in the early days of his retirement impeded his interests and activities, but he nevertheless gave of his time and experience in local Government and secular affairs whilst resident at Felbridge, East Grinstead.

A quiet, unassuming personality, he had a great love for child welfare and he will be missed in this sphere of his remembrance. Kew was always such a happy memory for him.

ROBERT M. GLOVER (his brother).

L. J. HARDING

It is with much regret that we record the passing of Lawrence Joseph Harding. He was born at Clapham, London, on the 14th February, 1881, and died 19th May, 1969.

From his early days he enjoyed all forms of woodwork and gained valuable experience while working for the firm Waring and Gillow, before joining the Museum Staff at Kew in 1913. Here he built up a fine reputation as a skilful craftsman, taking the greatest pride in his work and becoming a genius in the preparation of all kinds of wood for exhibition.



Harding enjoyed his life at Kew immensely, both officially and socially. Although he was a member of the Cricket Club, tennis was his favourite sport and he was to be found on the courts most weekends. He commenced playing at the age of forty but soon became a very good player.

He was endowed with a very fine tenor voice. During his schoolboy days he became a chorister and later sang in many churches, both locally and at Temple Church, London. He also had a long association with Richmond Operatic Society, playing many leading roles. After retirement, when in his eighties, he joined the Parish Church Choir at Dereham, Norfolk, and the local Choral Society. To the older generation of Kewites he will always be remembered for his delightful songs at Kew "Annuals" and "Dinners".

During the First World War he served in the Royal Naval Air Service and in the Home Guard in the Second World War. He was a member of the Richmond Masonic Lodge from March, 1944, and its Master for one year, from May, 1956.

In 1960, at the age of 79, he retired to live in an attractive bungalow at Quebec Hall on the outskirts of Dereham, Norfolk. Here he continued to lead an active life in park-like surroundings. For close on half a century "Laurie" Harding had been a familiar figure at Kew. In old age Kew was always in his thoughts. We extend much sympathy to his widow, Mrs. Harding, and to his son and daughter.

DR. C. E. HUBBARD.

Gordon Scott died under tragic and mysterious circumstances in the Hawaiian Islands early in 1969. He had lived in the Islands since July, 1967, after resigning from directorship of the Tennessee Botanical Gardens at Nashville, Tennessee. In Honolulu he engaged in radio work and as moderator of a "talk show", originating at one of the city stations had become a well known radio personality.

On 11th February Scott disappeared. A month later police located his car in a downtown parking lot and on 17th April his body was found in a cane field some distance outside Honolulu. Events leading to his death are unknown.

Born in Oxford on 5th July, 1926, Gordon was educated at the University Botanic Gardens at Oxford and Cambridge and graduated from the Royal Botanic Gardens at Kew. He held the Kew Certificate, the Royal Horticultural Society's Senior Certificate and three University of London Certificates in botany, mycology and entomology.

From his study at Kew he went to Bermuda where he worked for three-and-a-half years with the Department of Agriculture as reafforestation officer and horticulturist. While in Bermuda he was married in 1954 to Elizabeth Keir, a native of Toronto, Ontario, Canada.

Scott moved to the United States in 1956, joining the staff of the Morton Arboretum at Lisle, Illinois as horticulturist and public relations co-ordinator. There he was actively engaged in the educational programme. In November, 1959, he moved to Nashville, Tennessee, as first director of the garden department at Cheekwood, the newly-formed Tennessee Botanical Gardens and Fine Arts Centre. He set up self-conducting nature trails and instituted an educational programme for both children and adults in the fields of nature study, horticulture, botany and landscaping. He lectured widely and co-operated with local horticultural groups in staging floral exhibitions.

Scott's enthusiasm and engaging manner endeared him to



many friends in the Middle Tennessee area. At news of his untimely death a memorial service was held for him in Nashville on 22nd April. A similar service was held on 24th April at the Foster Botanical Gardens in Honolulu. In accordance with family wishes, his ashes were scattered over the Pacific Ocean.

Scott is survived by his widow and children, David and Rebecca Anne, now living in Nashville, Tennessee; his parents, Mr. and Mrs. Arthur Scott, Oxford, England; and a sister, Miss Joan Scott, Auckland, New Zealand.

SAM CALDWELL, a close friend.

C. R. GREGORY

The death occurred at his home in Cardiff on the 26th April 1969, of Mr. C. R. Gregory, at the age of 70. He had been in failing health for several months.

Mr. Gregory spent most of his career in the Horticultural Advisory Services. Immediately following a period of training at Kew he served under the Warwickshire County Council and later under the Glamorgan County Council, where he remained until 1946. In that year he joined the National Agricultural Advisory Service as Senior Horticultural Adviser for Glamorgan and held this post until 1964. He continued to serve in the N.A.A.S. until 1967. In 1966 he was awarded the M.B.E. in recognition of his services to the horticultural industry. He was a holder of the N.D.H.



For many years he acted as examiner for various horticultural examinations conducted by the Royal Horticultural Society, City and Guilds and Local Authorities. He had also been a chief examiner for the Welsh Joint Education Committee.

During his service in South Wales he made many friends amongst farmers and growers. He made a particular point of contacting any Old Kewites and was always interested in any news from Kew.

We extend our sympathy to his relatives in their bereavement.

MR. L. ROBERTS, *County Horticultural Adviser.*

J. H. BEALE

The death of James Henry Beale on December 2nd, 1969, marked the end of a long career for a real plantsman, and left a great gap in the organization which enjoyed his enthusiasm and devotion — The Association of Kew Gardeners in America — for many years.

It was always a delight to listen to the tales about Kew in the old days when men like Henry Downer (1912), Montague Free (1912) William Ing (1905) and George Pring (1906) met at our annual meeting—their loyalty as Kewites always evident.



Harry Beale, as he was generally known, was born on March 2nd, 1885, in Glasgow, Scotland, of English parents. He was educated in England, and, as part of his schooling, completed his work at Kew in 1911. He served in France in World War I with the 7th (Robin Hood) Battalion of the Sherwood Foresters. While waiting in France for his discharge from the army at the end of the war, he took two intensive courses in Forest Management of the Lyon and Eawy Forests. Details of his horticultural activity after the war are not given in notes furnished by his widow, but he was for a time listed as a lecturer and instructor in Horticulture at Midland Agricultural and Dairy College at Kingston-on-Soar, Derbyshire.

In 1925 he went to the United States and worked for a short time with Hicks Nurseries on Long Island, N.Y.—a nursery with a memorable history which is still in operation. Soon after, he became Horticulturist in charge of the Boyce Thompson Arboretum in Yonkers, N.Y. Here he met Helen Purdy, a member of the Institute staff, who became his wife in 1928, and their years together were rich and meaningful. During his 28 years at the Arboretum he imported over 3,000 species of plants which he propagated for study. He collaborated with many scientific institutions in providing unusual and promising plants.

Retirement from his position at the Arboretum in 1952 did not have its customary connotation for Harry as he continued to do considerable writing for *The New York Times*, *The New York Sun*, *Flower Grower*, *Horticulture Magazine* and other publications.

Practising what he had preached in lectures, radio programmes

and Victory Garden projects during World War II, he maintained a fine garden at his home in Ridgefield, Connecticut and enjoyed showing his guests around, evincing a lively personal interest in each plant.

As an instructor of courses at the New York Botanical Garden, he was a favourite, and left no doubt in the minds of his pupils about the correct way to prune and care for trees and shrubs. His book *The Evergreens* was published in 1960 and has been widely read. Before and after retirement, Harry and his wife visited many famous gardens in Europe and the United States, and there were many social gatherings of Kewites at their delightful Ridgefield home.

It is certain that his dynamic interest in plants has been passed along to a great many of those who benefited from his wide experience, and that those who knew him personally will always remember his warm, sympathetic relationship to his fellowmen. T. H. Everett, of the New York Botanic Garden, a long-time friend and Kewite, remembers Harry as "one of that rare breed . . . called Nature's gentlemen".

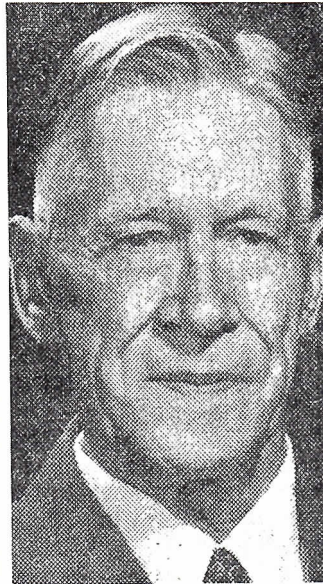
In addition to his widow, he is survived by a sister, Mrs. A. Connor, and a niece, Helen Elisabeth Beale, both of Yorkshire.

HOWARD W. SWIFT (1937).

HENRY ERNEST DOWNER

With deep regret we record the death of H. E. Downer on 8th September, 1968, at the age of 83 years, in Poughkeepsie, New York, U.S.A. He left Kew in 1912 for the United States in company with a fellow Kewite, the late Montague Free, with whom he maintained the closest of friendships.

Downer's gardening experience was acquired on various estates, and finally with two years at Kew, where he served in the Tropical Pits. On arrival in New York he was employed for a brief period by the florist firm of Max Schling, and then on the estate of Thomas Alva Edison, where he met his first wife, the former Anne Whelan of Australia, who died in 1949. He moved to Smith College, Northampton, Massachusetts in 1914, as Lecturer in Horticulture and Superintendent of Grounds, a position he held for seven years. Later he



transferred in 1921 to Vassar College, Poughkeepsie, New York in a similar capacity, remaining there until his retirement in 1952.

At Vassar, Downer undertook extensive alterations and improvements in the landscaping of the campus, which included the construction of a very large circular grass area enclosed by a wide herbaceous border. This was used for recreational purposes by students, including the Commencement Exercises which were held each June, several hundred people attending. Other major projects included the construction of a nine-hole golf course and an outdoor theatre. His efforts on behalf of the college were so greatly appreciated by the Trustees that two groves of oak trees were named in his honour.

Apart from his lecture and instruction courses at the college, he was in constant demand as a lecturer from various organisations and was highly regarded as a flower show judge. He also served for forty years as one of the judges at the large and important International Spring Flower Show in New York.

Downer contributed extensively to the horticultural press and for a number of years wrote the weekly gardening column in the *New York Herald Tribune*, and also for the *New York Sun*. He also wrote an appendix to Montague Free's—*All about the Perennial Garden* and a booklet—*How to Plant and Care for your Garden*. He was a co-author of *Flowers and Roses*, and co-operated with two others to produce *The Golden Guide to Flowers*. Contributions were made to *The New York Encyclopedia*; *10,000 Garden Questions*; *New Illustrated Encyclopedia of Gardening*; *Favourite Flowers in Colour*; *Gardening with the Experts*; *The Gardeners Chronicle of America* and the *Popular Gardening Magazine* (of which he was a staff member). In addition he wrote numerous specialized articles in other magazines.

Downer was deeply interested in education, and served in various capacities on the Board of Education of the Arlington School District, in which he lived from 1930-37. After his retirement from Vassar College he was not content to sit idle, but conducted eight Garden Tours to Britain and Europe and one Round the World Tour during which many countries were visited. His last conducted tour was in 1968, when he went to Spain and Portugal. On all of his tours he was accompanied and assisted by his wife Katherine.

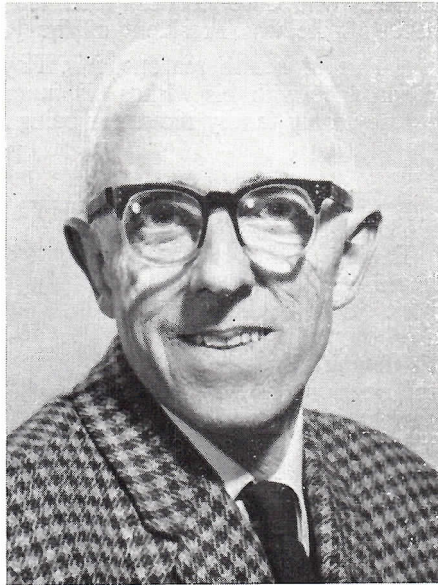
The keenest of horticulturists, Downer's interests were not limited, but embraced tropical as well as hardy plants, whether flowers, fruits or vegetables. His love for and belief in Kew and all it has meant to the world at large never flagged, indeed it was probably greater at the time of his death than during his period at Kew.

He is survived by his second wife, the former Katherine D. Cookingham, and one, Ernest Downer, of two sons by his first wife, four grandchildren and three great-grandchildren, and also by his sister, Mrs. Ada Pilling of Ryde, Isle of Wight. We send our very sincere sympathies.

T. D. BOYD

It is with great sorrow that we have to record that Mr. Thomas Dickson Boyd died suddenly in hospital on 27th April, 1969, aged 69. Mr. Boyd, who was Superintendent of Parks for Accrington for 29 years, was a native of Ayr, Scotland.

He had a long and varied horticultural career. This started with an apprenticeship at Haigh Hall, Wigan, under his father who was head gardener to the Earl of Crawford and Balcarres. After service in H.M. Forces during the latter half of the first World War, Mr. Boyd was ap-



pointed Chief Plantsman and Decorator to the Earl of Derby at Knowsley Hall, Prescott, and subsequently he was awarded a studentship at Kew. In the words of Sir Arthur Hill the Director, as written on his Kew Certificate—"He entered the service of the Royal Botanic Gardens, Kew, as a student gardener on 24th September, 1923. He proved so capable at his work that he was promoted to be foreman in the herbaceous department in February, 1925, which position he held until leaving Kew in August, 1928.

From Kew he was appointed to the Imperial Institute of Entomology at Farnham Royal for the Council of Industrial and Scientific Research. His next position was that of nursery manager at Orchidhurst, Tunbridge Wells, Kent, for Messrs Armstrong and Brown, Nurserymen.

Mr. Boyd moved to Accrington in 1931 as Chief Assistant to Mr. Hugh Boyd, the then Park Superintendent, and in 1935 succeeded him as Superintendent. During his term of office the playing fields and public gardens greatly increased in number and a crematorium was established. He was held in the highest esteem by the staff and Corporation officials alike and it was a measure of the Council's gratitude for his service that on his retirement the presentations were made at a full Council meeting and tributes were paid from every side of the house. Mr. Boyd left the Council Chamber to a standing ovation. He was extremely diligent in the training of apprentices and there are today quite a few young men, holding prominent positions in Parks Departments, who owe their good start to him.

He married in 1938, Miss Elizabeth Holden of Samlesbury, Lancs., who unfortunately died ten years later. For the period 1950/51, he was President of the Rotary Club of Accrington.

Due to health reasons, Mr. Boyd had to retire in 1964. In accordance with his wishes his funeral took place in the strictest privacy, only family mourners being present.

R. M. GOLDEN (his nephew).

Mrs. M. SUCKLING (née PHYLLIS MERRYWEATHER)

During the year we heard the sad news that Mrs. M. E. Suckling had died on 19th May, 1969. Following our quest for information, one of her daughters, Mrs. E. M. Yates sent us a very detailed letter through which ran a story of dedication and service. We can do no better than to quote from this — “My great grandfather, Henry Merryweather started the firm of H. Merryweather and Sons Ltd. about the middle of the last century, his first big success being the Bramleys Seedling Apple (Hertfordshire Pomona—“The apple was



raised by Mr. Bramley of Southwell, some years ago, introduced by Mr. Merryweather Notts in 1876’). My grandfather, his eldest son, carried on the business while my mother, the elder of two daughters (no sons) gave all her interest to horticulture. She was a pupil at Swanley College, passing out I think in 1913.

“Mother then went to Bournville to work for George Cadbury, entering Kew early in 1915. It was a great disappointment to her later when she returned home to run the firm with only a handful of girls and some German prisoners. After marrying in 1919, mother went to live in Birmingham. My father’s death at forty, through war injuries, left her with three young children. Returning to Southwell to work again for Merryweathers she became a Director of the firm in 1940. The loss of her only son, a Flying Officer in the R.A.F., in 1941, was a great blow to her, although she did have the pride of knowing that he was the Coastal Command Pilot who found and photographed the ‘missing’ German warship ‘Bismark’ in Bergen Harbour, only a few weeks before his death over France.

“She continued to work hard for Merryweathers, directing a team of garden girls. By the late 50’s increasing ill-health and two major operations left her on crutches. In 1963 another blow fell with cancer of the throat. Drastic and painful treatment cured it for a while, but in 1967 it returned and at the same time she became blind. Her last days were saddened also by the loss of contact with the firm Merryweather, which she had worked so hard and long for.”

Mrs. Yates ends—“Only the week before her death I took the *Guild Journal* in hospital to read some of it to her—she remained interested in the Gardens to the end”.

We send our very sincere sympathies to her two daughters.

A. C. MILES

Archibald Clarence Miles, who died recently at his home in Wales, was born on 2nd July, 1887 and, in 1908, was awarded the Kew Certificate. After leaving Kew he went to West Africa in January, 1909, to join the Department of Agriculture, of what was then the Gold Coast Colony. In 1914 he visited the West Indies to study cacao cultivations. He resigned from the service in June, 1919, to take a post with Nestlé’s (Raw Products), but in 1921, rejoined the Gold Coast Department of Agriculture and stayed in it until 1947, having been made Deputy Director in 1933.

From 1947 until his retirement in 1949 he continued as Controller of Export Produce, a post for which he was well fitted because of his unrivalled knowledge of all aspects of cacao growing and marketing.

At the request of Messrs. Nestlé’s he returned to West Africa for the period 1953 to 1956, but this was his last visit to Ghana—a country whose people and agriculture he had served so well.

MR. C. L. SKIDMORE—who was a colleague in the Gold Coast Department of Agriculture.

KEW STAFF LIST

(October, 1969)

† Formerly a Student Gardener. * Life Member.

			<i>Entered Kew</i>
DIRECTOR'S OFFICE			
Director	Sir George Taylor, D.Sc., F.R.S., F.R.S.E., F.L.S., V.M.H.	1956	
Deputy Director, Keeper of Herbarium and Library (D.C.S.O.)	J. P. M. Brennan, M.A., B.Sc., F.L.S.	1948	
Secretary (Chief Executive Officer)....	R. W. King, D.F.C.	1959	
Higher Executive Officer.....	J. G. Hicks	1964	
Executive Officer	W. C. W. Grimes	1967	
" "	Miss M. R. Axton	1967	
Clerical Officer/Secretary	Mrs. A. M. E. Kendall	1947	
Clerical Officer	Mrs. H. M. Hyde	1966	
" "	Mrs. I. V. Render	1965	
" "	J. A. Vaughan	1966	
" "	Mrs. V. O. M. Clark	1967	
" "	E. F. Bacon	1968	
" "	Miss C. A. Heron	1969	
Clerical Assistant	Mrs. F. L. Upton	1964	
" "	D. C. G. Daniel	1969	
" "	Miss M. I. Hutchins	1967	
" "	Mrs. S. Sraon	1969	
Shorthand Typist	Miss E. H. Smith	1966	
" "	Mrs. K. M. Murphy	1968	
Telephone Operator	Mrs. C. Lansdell	1966	
HERBARIUM AND LIBRARY			
Deputy Keeper, S.P.S.O.	E. W. B. H. Milne-Redhead, I.S.O., T.D., M.A., F.L.S.	1928	
Senior Principal Scientific Officer.....	R. W. G. Dennis, B.Sc., Ph.D. ...	1944	
Principal Scientific Officer.....	R. D. Meikle, B.A., LL.B., F.L.S.	1947	
" " "	D. A. Reid, B.Sc., Ph.D. ...	1951	
" " "	W. D. Clayton, B.Sc., Ph.D., A.R.C.S., F.L.S.	1958	
" " "	F. N. Hepper, B.Sc., F.L.S. ...	1950	
" " "	L. L. Forman, B.Sc., F.L.S. ...	1951	
" " "	P. S. Green, B.Sc., F.L.S. ...	1966	
" " "	Miss F. M. Jarrett, M.A., Ph.D., F.L.S.	1959	
" " "	C. Jeffrey, B.A.	1957	
Senior Scientific Officer	D. M. Dring, B.Sc., Ph.D., F.L.S.	1962	
" " "	P. F. Hunt, M.Sc.	1959	
" " "	D. R. Hunt, M.A., A.R.C.O. ...	1961	
" " "	C. C. Townsend	1951	
" " "	G. Ll. Lucas, B.Sc., F.L.S. ...	1963	
" " "	R. M. Polhill, B.A., F.L.S. ...	1961	
" " "	R. K. Brummitt, B.Sc., Ph.D., F.L.S.	1963	
" " "	Miss D. M. Napper, B.Sc., F.L.S.	1965	
" " "	A. R. Smith, B.Sc., F.L.S. ...	1962	
" " "	W. Marais, B.Sc., M.Sc. ...	1968	
" " "	R. M. Harley, B.A., D.Phil., F.L.S.	1968	
" " "	I. K. Ferguson, B.A., Ph.D., F.L.S.	1968	
Scientific Officer	Mrs. S. M. Phillips, B.Sc. (Miss King)	1966	
Senior Experimental Officer.....	P. G. Taylor, F.L.S.	1948	

Entered

	<i>Kew</i>
Experimental Officer	Miss S. S. Hooper, B.Sc., F.L.S. ... 1954
" "	D. Philcox, M.Sc., F.L.S., M.I.Biol. 1959
" "	D. V. Field, B.Sc., M.Phil., F.L.S. 1960
" "	Miss J. K. Bowden, B.Sc., F.L.S.... 1949
" "	M. J. S. Sands, B.Sc. ... 1959
" "	D. N. Pegler, B.Sc., M.Sc., F.L.S.... 1960
" "	G. E. Wickens, B.Sc., M.Sc., F.L.S. 1967
" "	B. F. Mathew, F.L.S. ... 1967
" "	Mrs. J. L. M. Pinner (Miss Fletcher) 1952
Assistant Experimental Officer.....	S. A. Renvoize, B.Sc. ... 1963
" " "	C. Grey-Wilson, B.Sc. ... 1968
Botanist (Bentham-Moxon)	H. K. Airy Shaw, B.A. ... 1925
Botanist (S. African Government)....	J. B. Killick, M.Sc., Ph.D., F.L.S. 1969
Botanist (Australian Government).....	D. J. McGillivray, B.Sc., For., Dip.For. ... 1968
Botanist (Iraqi Government)	E. R. Guest, B.Sc., A.R.C.S., A.I.C.T.A. ... 1959
Principal Research Fellow	B. Verdcourt, B.Sc., Ph.D., F.L.S. 1964
Senior Scientific Assistant	Miss J. Forster ... 1947
" " "	Miss I. Blewett ... 1941
" " "	Miss T. A. Bence ... 1958
Scientific Assistant	Miss P. Halliday ... 1947
" "	Miss V. Mann ... 1958
" "	J. L. Gilbert... ... 1955
" "	Miss V. A. Carder ... 1955
" "	Mrs. D. M. Bridson (Miss Shepherd) 1963
" "	Miss V. F. Mulford ... 1964
" "	Mrs. D. Polhill (Miss Moscoff) ... 1957
" "	Mrs. F. Neate, B.A. (P/T)... 1963
" "	Miss J. M. Shaw ... 1966
" "	Miss P. E. Carman... ... 1966
" "	Mrs. J. Richardson (Miss McEwan) 1956
" "	P. J. Edwards ... 1967
" "	Mrs. K. Legassick ... 1968
" "	Miss J. E. Redpath... ... 1968
" "	Mrs. C. M. Barndon ... 1968
" "	Miss C. A. Pitts ... 1969
" "	Mrs. S. Dickerson ... 1969
" "	Miss M. R. E. Grigg ... 1969
" "	Mrs. A. E. Ansell ... 1969
" " (Herb. Accessions)	Mrs. M. J. Bowen-Jones ... 1963
" " (Gardens Accessions)	Miss M. A. Wood ... 1966
Senior Preparer (Sen. Lab. Attendant)	Miss I. L. Taylor ... 1959
Preparer (Laboratory Attendant)	Mrs. L. C. F. Glenister ... 1956
" " "	Mrs. M. W. Glover ... 1960
" " "	Mrs. E. M. Tooth ... 1965
" " "	Mrs. A. Claxton ... 1966
" " "	Mrs. F. V. Cox ... 1966
" " "	Mrs. H. Dzilna ... 1954
" " "	Mrs. D. B. Boaler ... 1962
" " "	Mrs. I. R. Tinker ... 1966
" " "	Mrs. V. E. Baker ... 1959
Senior Photographer	R. R. Zabeau ... 1956
Senior Illustrator	Miss M. A. Grierson, F.L.S. ... 1960
Executive Officer (Herbarium).....	Mrs. E. J. Everitt ... 1963
Clerical Officer (Herbarium).....	Mrs. M. D. Norman ... 1967
" " "	W. J. Nicholas ... 1967
Clerical Assistant	Mrs. I. I. Scott ... 1963
Shorthand Typist	Mrs. P. M. Hutchinson ... 1966
" "	Mrs. D. A. Campbell ... 1966
Librarian	R. G. C. Desmond, F.L.A. ... 1961

	<i>Entered</i>	<i>Kew</i>
Assistant Librarian	Mrs. M. M. Wickens, B.A., A.L.A. (Miss Stammers) ...	1967
" "	Miss K. E. W. Rattue, A.L.A. ...	1961
" "	Miss G. M. Grainger, A.L.A. ...	1964
" "	Miss B. R. Fairweather, A.L.A. ...	1968
Clerical Officer (Library)	Miss M. J. Kierans ...	1934
" " "	Miss H. M. White ...	1959
" " "	Mrs. K. E. Mortimer ...	1964
" " "	Mrs. P. A. Wilson ...	1967
" " "	Mrs. J. Ashman ...	1967
Clerical Assistant (Library)	Mrs. H. Hinds ...	1967
Library Typist (P/T)	Mrs. J. E. Taylor ...	1966
" "	Mrs. M. Gazzard ...	1966
Paperkeeper (Library)	T. R. Freeman ...	1964
Index Kewensis (Bentham Moxon)...	Miss M. I. Skan, M.B.E. ...	1919
Index Londinensis (Bentham Moxon)	P. Heawood ...	1959
" " " "	Mrs. S. M. Shury ...	1960
" " " "	Miss C. Newall ...	1961
Senior Messenger	W. H. Nightingale ...	1965
Paperkeeper (Packer)	E. W. Holland
TYPING POOL		
Clerical Officer/Supt. of Typists.....	Mrs. M. J. Brind ...	1955
Typist	Miss I. M. Chambers ...	1961
"	Mrs. M. M. Longman (Miss Sillitoe)	1947
"	Mrs. E. N. Attwood (P/T) ...	1964
"	Mrs. I. E. Lightman ...	1964
"	Mrs. B. C. Davies ...	1965
"	Mrs. E. J. Fitchett (P/T) ...	1965
"	Mrs. J. E. Turner ...	1965
"	Mrs. J. L. Ronald ...	1966
"	Mrs. D. M. Rocke ...	1967
Duplicator Operator	Mrs. P. Lemon ...	1968
Gardener, Grade 1	W. A. Mullins ...	1942
JODRELL LABORATORY		
Keeper (Senior Principal Scientific Officer)	K. Jones, B.Sc., Ph.D., F.L.S. ...	1960
Principal Scientific Officer	P. A. Thompson, B.Sc., M.Sc., Ph.D.	1964
Senior Scientific Officer	Miss M. Y. Stant, B.Sc., Ph.D., F.L.S.	1950
" " "	T. Reynolds, B.Sc., M.Sc., D.I.C., A.R.C.S. ...	1966
" " "	D. F. Cutler, B.Sc., Ph.D., F.L.S., D.I.C. ...	1962
" " "	C. J. Marchant, B.Sc., Ph.D.	1962
Experimental Officer	F. R. Richardson ...	1934
" "	Miss M. Gregory, B.A. ...	1961
" "	D. J. C. Fox, A.M.I.T.E. ...	1966
Senior Research Fellow	P. E. Brandham, B.Sc., Ph.D.	1967
Senior Scientific Assistant	Miss D. M. Catling ...	1950
Scientific Assistant	Miss C. A. Brighton ...	1965
" "	Mrs. S. Bastable ...	1969
Laboratory Attendant	Mrs. E. Turrell (P/T) ...	1965
" "	Mrs. J. O. Ellis (P/T) ...	1969
Laboratory Mechanic	E. Borez ...	1967
Senior Photographer	T. A. Harwood ...	1965
Shorthand Typist/Receptionist	Miss V. Horwill ...	1951

INCOME AND EXPENDITURE ACCOUNT

1968				1969	
£	s. d.	DEBIT		£	s. d.
1	18 7	To Hon. Secretary's Expenses	...	1	7 1
9	0 3	To Hon. Editor's Expenses	...	16	13 6
17	6 5	To Hon. Treasurer's Expenses	...	1	13 6
8	0 6	To General Printing, Postage and Stationery	...	20	4 8
24	5 0	To Typing and Clerical Expenses	...	16	15 0
1	6 0	To Insurance and Bank Charges	...	1	1 0
15	10 0	To Benevolent Payments and Wreaths	...	23	16 3
<i>To Kew Guild Journal—</i>					
		Printing 1958 Journal (including blocks)	...	390	3 2
		Envelopes	...	4	11 0
		Postage for Journal	...	15	19 6
359	8 5				410 13 8
<i>To Annual General Meeting—</i>					
7	8 0	Printing, Postage, Envelopes, etc.	...	13	0 10
<i>To Prizes Awarded by the Guild, 1969—</i>					
		C. P. Raffill (Mutual) to D. Maguire	...	3	3 0
		Dümmer (Bot. Club) to P. Styles	...	5	5 0
		Proudlock (Bot. Club) to D. Evemy	...	3	3 0
		Matilda Smith (Best Pract.) to J. Wickham	...	10	10 0
		Best Plot to P. Styles	...	3	3 0
		Best Thesis to J. Wickham	...	3	3 0
		Watson (N.D.H. Refund) to A. Esmonde	...	12	12 0
40	19 0				40 19 0
485	2 2				546 4 6
248	12 0	Income exceeds Expenditure	...	123	4 8
£733	14 2			£669	9 2
3,781	3 6	Balance as per Balance Sheet	..	3,919	4 8
£3,781	3 6			£3,919	4 8

THE KEW GUILD BALANCE SHEET

1968		LIABILITIES		1969	
£	s. d.			£	s. d.
3,781	3 6½	<i>Capital Fund—</i>			
		As per attached Statement of Assets	...	3,919	4 8
<i>Current Liabilities—</i>					
Life Subscribers:					
		78 at £1—half rate	...	39	0 0
		86 at £2—half rate	...	86	0 0
		79 at £3 3s. 0d.—half rate	...	124	8 6
		7 at £5 5s. 0d.	...	36	15 0
		13 no record	...	—	—
301	0 0			286	3 6
£4,082	3 6½			£4,205	8 2

FOR THE YEAR ENDED 31st DECEMBER, 1969

1968			1969
£ s. d.		CREDIT	£ s. d. £ s. d.
390 6 9	By Annual Subscriptions and Arrears	...	415 16 9
125 2 8	By additional Life Subscriptions and Donations...		25 2 6
	<i>By Dividends—</i>		
	From Charities Official Investment Fund:		
	Quarter ended 31st January, 1959	... 35 4 4	
	Quarter ended 30th April 1969	... 39 1 11	
	Quarter ended 31st July, 1969	... 51 18 7	
	Quarter ended 31st October, 1959	... 46 0 3	
155 15 8			172 5 1
	<i>By Interest from Deposit A/c. (Barclays Bank)—</i>		
	January—June, 1969	... 25 13 0	
	June—December, 1969	... 19 18 4	
41 2 8			45 11 4
	<i>By Guild Annual Dinner—</i>		
	Receipts from Sale of Tickets	... 199 15 0	
	Less Cost of Dinner, Gratuities, Fees, etc.	... 197 10 0	
13 4 5			2 5 0
	<i>By Guild Annual Teas—</i>		
	Receipts of 84 Teas at 4/6d. per head	... 18 18 0	
	Less Expenditure	... 18 18 0	
2 0 0			— — —
	<i>By Guild Emblem Sales—</i>		
	Receipts, less Expenditure (Inc. Postage, etc.)...		8 8 6
6 2 0			
£733 14 2			£669 9 2
	Balance as at 1st January, 1969	... 3,781 3 6	
	Reduction of Life Subscription Liabilities	... 14 16 6	
	Add Excess of Income over Expenditure	... 123 4 8	
£3,781 3 6			£3,919 4 8

FOR THE YEAR ENDED 31st DECEMBER, 1969

1968		ASSETS	1969
£ s. d.			£ s. d. £ s. d.
	<i>Invested Assets—</i>		
	Charities Official Investment Fund (3,155 Shares at cost, quoted £1 3s. 8d. on 30th June, 1959)		3,100 0 0
2,750 0 0			
	<i>Current Assets—</i>		
	Journals: nominal value of stock	... 89 12 10	
	Guild Emblems (purchase value)	... 35 15 0	
	Christmas Cards (purchase value)	... 32 7 7	
205 11 11			157 15 5
	<i>Cash at Barclays Bank—</i>		
	On Deposit	... 749 9 2	
	In Current Account	... 185 7 1	
1 091 1 3			934 16 3
35 10 4½			12 16 6
£4,082 3 6½			£4,205 8 2

Audited and found correct,

Signed DAVID HUNT,

J. S. KEESING.

} Hon. Auditors.

Dated 13th January, 1970.

STUDENT GARDENERS ON A THREE-YEAR COURSE

(Commenced 2nd October, 1967)

G. D. Armstrong	P. F. Clothier	M. Holloway	D. M. Painter
C. Beardsley	J. Tuck	R. Johnson	J. Protheroe
P. A. Boys	E. Fenwick	G. P. Wood	B. Roby
A. P. Child	D. J. Hicks	D. R. Owen	T. R. B. Storr

(Commenced 7th October, 1968)

C. B. Bankole	A. P. Harvey	D. T. Maguire	M. Wilkinson
R. Chandler	G. Hilton	J. M. Reed	S. A. Wilton
G. Cole	M. J. Leppard	J. A. Smith	P. C. B. Young
C. D. Hallsworth	A. R. Lovett	G. R. Watts	

(Commenced 6th October, 1969)

A. Andoh	J. C. Emmerton	A. Herscovitch	T. N. Savage
R. C. Bletsoe	V. P. Everett	H. B. Hewitt	C. F. Sawyer
J. P. Cox	Miss E. Feerick	R. M. Leach	A. F. Titchmarsh
P. W. Dunwood	T. E. Gilbert	I. Manders	D. J. Trevan
K. E. Eccleston	J. Harris	B. R. Phillips	M. J. Whitehead

EXPEDITIONS BY MEMBERS OF KEW HERBARIUM
TO OTHER COUNTRIES

These have shown a marked increase during the last year. We have insufficient space to deal with each one extensively in this issue, but next year we hope to have notes on at least some of them, together with others taking place during 1970. In the meantime readers might like to have the following resume.

Miss Diana Napper spent six months working in the East African Herbarium and making collections of *Cyperaceae* in Kenya.

Mr. G. E. Wickens was attached to an F.A.O. vegetation survey in the Sudan Republic during May and June, 1969.

Mr. David Hunt visited in July and August prior to attending the XIth International Botanical Congress in Seattle, U.S.A.

Mr. J. P. M. Brenan and Mr. R. D. Meikle also attended the Congress during September, 1969.

Dr. D. M. Dring spent the autumn in South America, lecturing on Gasteromycetes in Argentina and Sao Paulo, Brazil.

Mr. F. Nigel Hepper, the Guild's Hon. Secretary, joined the Trans-African Hovercraft Expedition from Dakar to Equatorial Africa from October to Christmas, 1969.

Mr. Martin Sands, the Guild's Assistant Hon. Secretary, has also been on a botanical expedition. He visited Singapore and spent several months in Indonesia during the latter part of 1969 and early in 1970.

RULES OF THE KEW GUILD

Name of the Society.

- (1) The name of the Society shall be "The Kew Guild."

Objects.

- (2) The objects of the Guild shall be—
- (a) the advancement of knowledge of horticulture generally and in particular in connection with the work of the Royal Botanic Gardens, Kew, and among members of the Guild.
 - (b) the encouragement of horticultural education at the Royal Botanic Gardens, Kew, by the provision of prizes and grants for Student Gardeners and the administration of the educational funds of the Guild.
 - (c) the provision of facilities for leisure time education and recreation in the interests of the social welfare of Student Gardeners and others having need of such facilities who are within the provisions of Section 1 of the Recreational Charities Act, 1958.
 - (d) the administration of the charitable funds of the Guild and the assistance from such funds of members of the Guild who are in need.
 - (e) the publication of a Journal in furtherance of the objects of the Guild or any of them.
 - (f) generally to do all such acts as shall further the active and corporate life of the Guild and may be lawfully done by a body established only for purposes recognised by the law of England as charitable.

Membership.

- (3) (a) Membership of the Guild shall be open to past and present Curators, Assistant Curators, Foremen-Gardeners, and Student Gardeners, who have been or are employed at the Royal Botanic Gardens, Kew, or at Wakehurst Place, Ardingly, Sussex, and to Voluntary Student Gardeners (provided that they have worked at the Gardens for at least one year), and to past and present members of the Scientific, Professional and Executive Staff at Kew and Wakehurst. The term "Kewites" where used herein or by the Guild in other publications shall mean a member of the Guild.
- (b) In addition the Committee may admit to membership of the Guild any member of the Kew staff outside the categories set out in 3(a) who, by virtue of the signal services he or she has rendered to the Guild, is deemed worthy of membership of the Guild.
- (c) Honorary Membership may be awarded at the discretion of the Committee to a former officer (Hon. Editor, Secretary or Treasurer) who has rendered outstanding service.
- (4) Members of the Guild shall have the right to vote at meetings and to compete in competitions, and shall be eligible for election as officers of the Guild or to serve on the Committee.
- (5) Any member wishing to resign shall give notice to the Honorary Secretary or the Honorary Treasurer before the first day of December in the year of his or her intention to resign.
- (6) (a) The Committee may by resolution communicated to the member in writing and stating concisely the grounds for which it proposes to act call upon any individual to resign from the Guild and if the member does not so resign within forty-eight days after being so called upon the Committee may by resolution terminate his membership.
- (b) before coming to any decision the Committee shall give the member affected proper facilities for stating his case to them either orally or in writing as the Committee may determine.

Annual Subscriptions.

- (7) The Annual Subscription which shall be payable on January 1st of each year shall be such a sum as the Annual General Meeting shall from time to time determine and shall entitle members to all publications of the Guild. A member whose subscription is one year in arrears shall not receive further publications until his arrears be fully paid. The annual subscription is at present £1. (Student Gardeners 10s.).
- (8) Any member whose subscriptions are fully paid may on the payment of a lump sum predetermined by the Annual General Meeting become a Life Member and be entitled to all the privileges of the Guild without further payment. A sum representing not less than one-half of each life subscription shall be invested in the name of the Trustees and the liabilities to Life Subscribers shall be clearly shown in the annual Statement of Accounts. The provisions of this Rule may be suspended by resolution of an Annual General Meeting for such period as the Annual General Meeting shall think fit.

Management of the Guild.

- (9) (a) The business of the Guild shall be conducted by a Committee composed of the officers and ordinary Committee members. The officers shall consist of the President, two Vice-Presidents, the immediate Past-President, the President-Elect, Honorary Secretary, Honorary Assistant Secretary, Honorary Treasurer, and Honorary Editor. The ordinary Committee members shall consist of four present Kewites, twelve Old Kewites and two Student Gardeners.
- (b) Nine members of the Committee shall form a quorum. The Committee shall meet from time to time as may be necessary. Nine members of the Committee may by signed written notice to the Honorary Secretary request him to call a meeting of the Committee and if such meeting be not called within thirty days of the despatch of such notice the said nine members may themselves call a meeting of the Committee by twenty-one days' notice in writing sent to all members thereof.
- (c) The Committee may regulate its own proceedings by standing order or otherwise as it may think fit. No act or proceedings of the Committee shall be invalidated by any vacancy on the Committee or any sub-committee thereof on the grounds that a member of the Committee or of a sub-committee thereof was not qualified at or had become disqualified after the date of his appointment. The Chairman of the Committee shall at Committee meetings have no second or casting vote in the case of an equality of votes.
- (d) At least seven days' written notice of a meeting of the Committee shall so far as practicable be given to every officer and other members of the Committee.
- (e) A Chairman of the Committee shall be elected by the Committee to take the Chair in the absence of the President, the immediate Past-President, the President-Elect and Vice-Presidents.
- (f) There shall be two Honorary Auditors chosen from among members of the Guild who are not members of the Committee.

Election of Officers, Committee, and Auditors.

- (10) (a) The President, the President-Elect, Honorary Secretary, Honorary Assistant Secretary, Honorary Treasurer, and Honorary Editor shall be elected annually at the Annual General Meeting. One Vice-President shall be elected annually at the Annual General Meeting and shall hold office for two years. Any vacancy among

the officers shall be filled as soon as possible by co-option by the Committee, and any person so co-opted shall hold office until the conclusion of the following Annual General Meeting.

- (b) Four ordinary Committee Members (three of whom shall be Old Kewites) shall be elected each year and shall hold office for four years. They shall not be eligible for re-election for at least twelve months after the end of their term of office. Any casual vacancy on the Committee shall be filled at the next Annual General Meeting, the member elected completing the term of office of the member whom he has replaced. The Student Gardener representatives shall be elected annually by the Student Gardeners.
- (c) One Honorary Auditor shall be elected each year and shall hold office for two years.
- (d) Candidates for election as officers or ordinary Committee members or Auditors may be proposed by any member of the Guild provided that the names of candidates be sent in writing to the Honorary Secretary at least twenty-eight clear days before the Annual General Meeting.

Meetings.

- (11) The Annual General Meeting shall be held at Kew on either the second or third Saturday in September. At the Annual General Meeting the Report of the Committee and a Statement of the Accounts shall be submitted and election of officers and Committee members and Auditors shall take place. Fourteen clear days before the Annual General Meeting the Honorary Secretary shall circulate to all members with an address in the United Kingdom a financial statement together with the agenda of the meeting which shall include a list of candidates for election as officers or ordinary Committee members or Auditors together with their proposers.
- (12) A Special General Meeting of the Guild may be called at any time by the Committee and shall be so called within fifty-six days of receipt by the Honorary Secretary of a requisition in writing signed by not less than thirty-five members stating the purpose for which such a meeting is desired and setting out any resolution which it is desired to propose thereat. Notice of the meeting with an agenda thereof shall be sent to all members with an address in the United Kingdom at least forty-two days before the date appointed for the meeting. Amendments to any resolutions set out in the agenda shall be sent to the Honorary Secretary at least twenty-eight clear days before the date of the meeting and shall be sent by him to all members with an address in the United Kingdom at least seven clear days before the date of the meeting. No business shall be transacted at such meeting other than that specified in the notice and no amendment of any substance to any resolution proposed at the meeting shall be allowed. The Chairman of the meeting shall be nominated by the Committee.
- (13) The accidental omission to give notice of a meeting to or the non-receipt of notice of a meeting by any member shall not invalidate any proceedings or resolutions at any meeting of the Guild or any Committee thereof.
- (14) At a General Meeting each individual member whose subscription is fully paid up to the date of the meeting shall have one vote and no more except the Chairman who shall have a second or casting vote in the case of an equality of votes.

Alterations to the Rules.

- (15) These rules may be altered by a two-thirds majority of those present and voting at an Annual or Special General Meeting. Any

proposals for the alteration of Rules shall be sent to the Honorary Secretary in writing at least twenty-eight clear days before the date of the Annual or Special General Meeting and shall be sent by him to all members with an address in the United Kingdom at least seven clear days before the date of the Annual or Special General Meeting.

Dissolution of the Guild.

- (16) A motion to dissolve the Guild may only be made at a Special General Meeting and to effect a dissolution at least three-quarters of the members actually present and voting at the meeting shall vote in favour of the dissolution. If a motion to dissolve the Guild is carried by the said majority the Guild's surplus funds, property and assets (if any) shall be disposed of for charitable purposes in connection with education and research and particularly for such charitable purposes of education and research in connection with botany and horticulture as the members may at the said Special General Meeting decide, or failing any such decision to a charity connected with botany and horticulture to be nominated by the Director of the Royal Botanic Gardens, Kew, for the time being, to the intent that no member of the Guild shall receive any of the said funds, property and assets by virtue of his membership.

Property of the Guild and Trustees.

- (17) (a) The Guild may purchase or otherwise acquire and hold property of any nature and may sell lease mortgage or otherwise deal with the same. Any property belonging to the Guild may be invested in the names of not more than four and not less than two Trustees who may be appointed from time to time by the Committee and any vacancy amongst such Trustees shall be filled by the Committee. Such property may also be invested in the name of a limited company established by and under the control of the Guild for trust purposes.
- (b) Such investments may be in or upon such shares, stocks, funds, securities, investments, and property, real or personal, freehold or leasehold in any part of the world upon such terms and conditions (if any) as the Committee shall in their absolute discretion think fit and in all respects as if the Committee were the sole beneficial owners thereof. The Committee may from time to time direct the Trustees to sell vary and transfer such investments and property.
- (c) The Committee may deal with the said investments as if they were the sole beneficial owners thereof.
- (d) If legal proceedings of any kind are resorted to or defended by the Guild the Trustees shall on the instructions of the Committee but not otherwise prosecute or defend such proceedings either in the name of the Guild or in the name of the Trustees or otherwise on behalf of the Guild as may be necessary.
- (e) The Trustees shall in all respects act as required by the Committee and a copy of a minute of the Committee signed by the Honorary Secretary shall be conclusive evidence of its decision.
- (f) Any Trustee may be removed from office by a resolution passed at a meeting of the Committee by a vote of not less than three-quarters majority of the members of the Committee present and voting at the meeting. At least seven clear days' notice of a special meeting to remove a Trustee shall be given to all members of the Committee and the agenda for the meeting shall state concisely the reasons why the removal is considered necessary and the accused Trustee shall be permitted to make his defence orally or in writing.

- (g) The Trustees shall be effectively indemnified by the Committee from and against any liability costs expenses and payments whatsoever which may be properly incurred or made by them in relation to the trusts of the property and investments of the Guild or in relation to any legal proceedings or which otherwise relate directly or indirectly to the performance of the functions of a Trustee of the Guild.
- (h) Except where otherwise provided the Trustees may act by a simple majority of those present and voting at a meeting of the Trustees.
- (i) The Trustees shall from among their number appoint an Honorary Secretary.

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ROYAL BOTANIC GARDENS, KEW

THE QUEEN'S GARDEN
AND
THE HERBARIUM

In commemoration of the visit of
Her Majesty the Queen in 1969

INTRODUCTION

On 14th May, 1969, Her Majesty Queen Elizabeth II visited the Royal Botanic Gardens, Kew, to open officially the new wing at the Herbarium and the seventeenth-century garden at Kew Palace. It is fitting therefore that the Kew Guild should issue a special supplement to the *Journal* to commemorate such an important event. For some years, while both the building and the garden were under construction, the Guild Committee had been hoping to issue such a publication at the appropriate time. Added incentive was given to the realisation of the project when it was known that the Queen herself was to officiate.

The opportunity has been taken to present an interesting history of the Herbarium and Library prepared by Mr. R. G. C. Desmond, who is the Librarian and the person responsible for the lay-out of the new library and for the re-classification of its contents. Mr. Desmond has taken a keen interest in the history of Kew in general and the Herbarium in particular. Several of the old photographs illustrating his account have never been published before. The historic group of the first four Keepers, the splendid interior view of the first extension now known as Wing C, the exterior of Hunter House and the amusing illustrated pages from the fourteenth century book are all reproduced for the first time.

The seventeenth-century garden, now to be known as the Queen's Garden, is already firmly established as one of the attractions of Kew. The article on the Garden is essentially the one written for the official brochure prepared by Mr. R. W. King, the Secretary, and Mr. J. P. M. Brenan, the Deputy Director.

The eye-witness accounts of the Queen's visit have been written by Mr. R. D. Meikle of the Herbarium, whose inimitable style is well known in his book reviews published in *Kew Bulletin*, and Mr. B. Halliwell, the Assistant Curator in charge of the Decorative Department.

Mr. Halliwell, as the one now responsible for the Queen's Garden, also tells us about the development of this type of garden and the plants that may be found in it. Anyone visiting the Queen's Garden for the first time will be amused by the excerpts from ancient herbals included on the labels and some of them are expanded in this article.

It is hoped that this supplement will be enjoyed by all its readers as well as by members of the Guild, and that it will serve as a permanent record of this special occasion. These two very different aspects of Kew are witness to its vitality as it continues into its third century as a botanical institution, and we are proud to be members of its staff.

G. E. BROWN,
Arboretum Department.
Hon. Editor, Kew Guild.

F. NIGEL HEPPER,
The Herbarium.
Hon. Secretary, Kew Guild.



Her Majesty the Queen in the Herbarium with Sir George Taylor, the Director, and Mr. J. P. M. Brennan, the Deputy Director and Keeper of the Herbarium.

KEW HERBARIUM AND LIBRARY

R. G. C. Desmond

On the north side of Kew Green near the Main Gates stands a Georgian building of modest proportions, fenced in by iron railings on which a notice proclaims "Herbarium and Library". Some botanists would argue that this building is the *raison d'être* of Kew and that the Gardens themselves are merely a pendant to the researches pursued there. This is a point of view that might be challenged but it cannot be denied that the work of the Gardens and the Herbarium are intimately connected. In 1840 John Lindley, the distinguished botanist and horticulturalist, expressed his opinion that the identification and naming of the plants could not be done unless "aided by an extensive herbarium and considerable library".

This observation embodied one of the recommendations proposed by Lindley and his two associates in a special report, authorized by Parliament, on the state and future of Kew Gardens. After the death in 1820 of Sir Joseph Banks, whose influence and guidance had established an international reputation for Kew, the fortunes of the Gardens, then the private property of the Crown, gradually declined and in the 1830s, rumours of their abandonment were widespread. Public agitation, however, in influential circles compelled Parliament to act. The Lindley Report, which was the outcome, strongly advocated not only the retention of the Gardens but also their reconstitution as a botanic garden and scientific centre worthy of the nation. Parliament accepted these recommendations and the concomitant responsibility for the administrative control of the Gardens, and in April, 1841, appointed Sir William Jackson Hooker, Professor of Botany at Glasgow University, as the first Director.

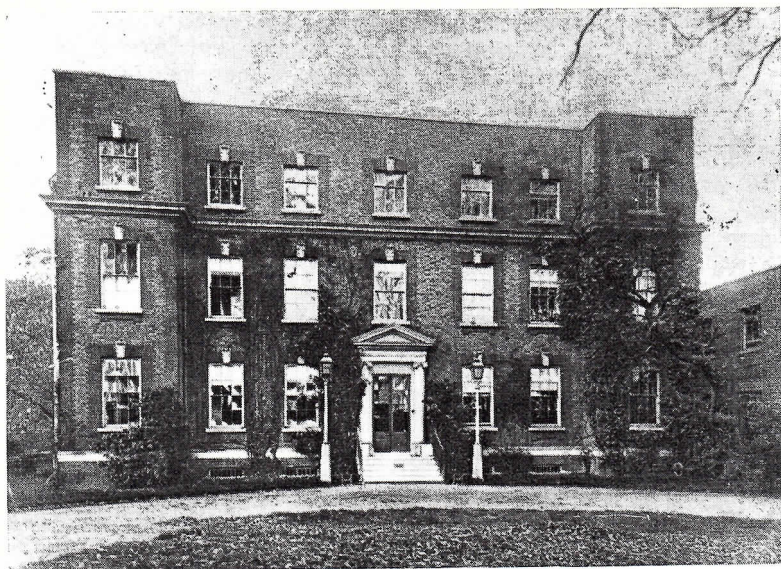
There was no official herbarium and library when Sir William first arrived at Kew. W. T. Aiton, whom he succeeded, regarded the books, drawings and manuscripts at Kew as his own personal property. The drawings were eventually restored to Kew but much of the manuscript material was misguidedly burnt on his death in 1849. A herbarium of British plants, collected by Robert Teesdale, and specimens of the Gardens plants which Aiton kept in Descanso House were sold on his death to a London seedsman. Another and far more important herbarium, was stored in a garden shed, and represented the South African, Brazilian and Australian collections of the plant collectors, Allan Cunningham and James Bowie. According to John Smith, at that time Foreman in the Gardens, "on the appointment of Sir W. Hooker in 1841 Mr. [Robert] Brown, the Keeper of the British Museum Herbarium, laid claim to the whole of this [collection] and it was transferred to the British Museum, having been in existence in the Gardens for 16 years".¹

Hooker had to fall back on the resources of his own considerable herbarium and library which filled 13 rooms in his

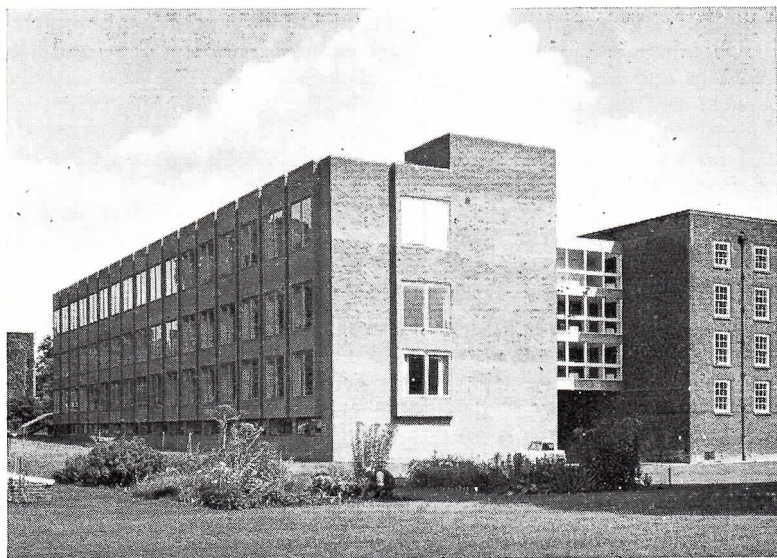
“very pretty, genteel and comfortable residence” at West Park, Mortlake. These were frequently consulted by other botanists and, not unnaturally, Sir William resented the personal expense of maintaining his collections for public use. His generous offer of his herbarium and library to Kew provided that the Government maintained them, was declined, although some token assistance was rendered by supplying mounting paper and presses. It would appear from an architect’s drawings in the Library archives that in 1846 the old fruit store (now Museum No. 2) was seriously considered for adaptation as a Herbarium and Director’s Office. For reasons unknown this conversion was never carried out. In December, 1847, the pressures on the space in Sir William’s home were relieved by removing much of his herbarium to a cottage in the Gardens.

In the summer of 1852 Sir William was embarrassed by the gift of the library and herbarium of the late William Arnold Bromfield, which had to remain in packing cases in a garden shed because no adequate room could be found for them. Therefore, when the King of Hanover’s Kew residence became available on his death in 1851, Sir William lost no time in petitioning the Chief Commissioner of Works for the use of the building. This was intended as temporary accommodation because “ultimately all the botanical books, as well as the entire Herbarium will be placed in the Museum building, and in that part directly communicating with the Director’s residence”.² A plan in the Library archives shows the site of the proposed museum immediately east of the Director’s house. However “the objections to placing it in the Public Grounds were considered to be insuperable by his Royal Highness the Prince Consort, the Board, and the Director; and it was because of these objections that Her Majesty was moved to allow the books and collections to be accommodated in the House which had been prepared for a similar purpose in 1820”.³ On 30th November, 1852, Sir William received the most welcome news from the Office of Works that “Her Majesty has been pleased to sanction the appropriation, for a limited period, of the ground floor of the King of Hanover’s House at Kew to the reception of your Herbarium”.⁴

The late King of Hanover’s house was one of a number of fashionable river-side residences on Kew Green. The artist, Peter Lely, lived near the present Herbarium in a house the site of which has now completely vanished. Another artist, Jeremiah Meyer, enjoyed the patronage of George III, and lived in the house on the corner of Ferry Lane, now known as Hanover House. The adjacent house — the present Herbarium — was occupied in the 1770s by Peter Theobald, a prominent local benefactor, and passed to the ownership of John Hunter in 1796. Tradition has it that Hunter and William Aiton left Lanarkshire together as young men heading south to seek their fortunes. Aiton eventually distinguished himself as Director of Kew Gardens, and his friend Hunter acquired wealth, social status and three houses at Kew.



Hunter House about 1870.



The new extension (Wing D) of the Herbarium and Library opened by the Queen. Wing A is seen on the right.

John Hunter died in 1812, and six years later the Prince Regent bought the house and its eight acres of land from his eldest son, Robert, together with the dwelling next door, Hanover House. This purchase was done at the instigation of Sir Joseph Banks who wished to establish a library there for the royal gardens at Kew. He intended Francis Bauer, the resident botanical artist, to be the first librarian. In 1820 the house was extensively redecorated; new marble chimney pieces were installed in all the principal chambers, and the small room to the right of the front entrance was fitted out with book shelves. According to J. C. Loudon "all the botanical books in the King's Library were to be moved there, and some had, in fact, been sent down, when, unfortunately, a dispute arose respecting the land, to which the Woods and Forests [Department] laid claim; and some artillery wagons driving off with the bookcases gave Mr. Bauer the first intimation that the plan had been abandoned".⁵

On 19th June, 1820, Sir Joseph died. Under his will Francis Bauer received an annuity of £300 "on condition that he continues to reside at Kew Green, and employs himself in making drawings of plants that flower in the collection at Kew, in the same manner that he has hitherto done". Under a codicil to the will, dated 7th March, 1820, Banks gave "to his Majesty, for the use of the establishment of the Royal Botanical Gardens at Kew, all the drawings and sketches of plants that have grown in the said gardens, and have been made at his [Banks's] expense by Mr. Bauer, and which are now deposited in his custody, deeply impressed with an opinion which he still continues to hold, and believes to be founded in truth, that the establishment of a Botanic Garden cannot be complete unless a resident draughtsman be constantly employed in making sketches and finished drawings of all new plants that perfect their flowers or fruits in it, and declares that he long ago determined to fix such a person at Kew, and maintain him at his own expense, and he accordingly engaged Mr. Bauer [in 1790], whose collection of drawings and sketches he trusts will prove a valuable addition to the important sciences of natural history". Unfortunately, Francis Bauer's work, drawings of superb quality and delicate detail, are no longer at Kew, but are the pride and glory of the botanical library at the British Museum (Natural History).

In order to make Hunter House more private George IV, by Act of Parliament in 1821, enclosed the western end of Kew Green. Railings were erected from Ferry Lane to the south side of the Green (the position of this fence is now marked by lime and London plane trees). It was the King's intention to demolish all the houses on the south side which were embraced by the enclosure. This would have meant the destruction of all the dwellings from the present Director's to the Deputy Director's. Fortunately, the scheme never materialised; Hunter House and its neighbour remained empty until the accession of William IV in 1830. He immediately restored the enclosed portion of the Green to the local Parish, and presented the former homes of Hunter and

Meyer to the Duke and Duchess of Cumberland who gave a housewarming party for 300 guests on 16th July, 1831.

Prince Ernest, Duke of Cumberland, sometimes castigated as Queen Victoria's "wicked uncle" was quite different in temperament from his brothers and sisters: taciturn where they were garrulous, and tenacious where they were irresolute. An intrepid cavalry officer in his youth, he matured into an extreme Tory whose only liberal action was to champion women in the Parliamentary debate on the Adultery Bill, the purpose of which was to prevent the marriage of guilty partners to a divorce. In defence of the opposite sex he declared: "So few men are inclined to marry the women they have seduced, that it would be cruel to deprive the females of this last hope". Disfigured by a savage sabre cut across his face and with an ill-concealed contempt for the conventions of political behaviour, he became one of the most hated and feared men in the country. He was fertile soil for scandal; it was widely believed, for instance, that he had murdered his valet, Sellis; that his wife had murdered her two previous husbands; and that he had enjoyed incestuous relations with his sister, the Princess Sophia. A suspected *amour* between the Duke and a certain Lady Graves prompted a wit to label him as "the violator of graves".

His correspondence reveals a surprising affection for Cumberland House, as it was now called. "You have no idea how *beautiful* and *delightful* Kew is this evening", he confided in one of his letters to his wife. "Wetherall and I went for a walk from seven till eight in the arboretum and round our dear garden. The hortensia are more beautiful this year than I have ever seen them and the verdure is magnificent".⁷ In 1837 he ascended the throne of Hanover and subsequently made little use of his Kew home. On the occasion of the death of the Duke of Cambridge in 1850, the distinguished mourners, who included the Prince Consort, the Duke of Wellington, and Lord Palmerston, gathered in Cumberland House. The following year the Duke of Cumberland also died and in 1852 Sir William Hooker moved in.

Hunter House now reverted to Banks's original design with the installation of Hooker's and Bromfield's herbaria and libraries, but Sir William's collections were kept separate, although equally accessible to the public. In 1854, George Bentham finding that the cost of looking after his large library and herbarium threatened to exceed his income, decided to present them to Kew. In a letter written in 1872 to the Earl of Derby, Bentham disclosed: "I was induced in 1854 to offer my own botanical collections, accumulated during 35 years, together with a working botanical library of about 1,000 volumes to the national establishment at Kew, as the one which gave the greatest security for its being maintained, extended, and applied to the use of science". For many years Sir William had himself paid an assistant to keep his herbarium in order, but in 1853 Allan A. Black was appointed Curator by the Office of Works. When he was compelled by ill-health to resign in 1864, he



The first four Keepers of the Herbarium.
Dr. Daniel Oliver (1863-90), left front;
J. G. Baker (1890-99), right front;
W. Botting Hemsley (1899-1908), back right;
Dr. Otto Stapf (1908-22), back left.

was succeeded by Dr. Daniel Oliver, already librarian at Kew since 1860, as Keeper of both the Herbarium and Library.

The collections of Hooker, Bromfield and Bentham established Kew as a major centre of taxonomic research for Great Britain and the Colonies, and inevitably attracted distinguished botanists from many countries. The Director was anxious that his own herbarium and library should remain at Kew, and in March, 1865, he prepared a memorandum for presentation after his death to the First Commissioner of Works. In it he stressed the fact that his son, Joseph, now Assistant Director, would not be able to maintain them. "Unlike me he inherits no competency, and he has a young family to bring up. Pecuniarily, it would be obviously to his interest to break it up and dispose of it; but this is a step which neither of us would willingly contemplate, and which would be reprobated by the whole scientific world. It is, therefore, my earnest desire that at my decease, the Chief Commissioner of H.M. Works should represent to Her Majesty's Government (to whose service nearly half a century of my life has been devoted) the propriety of purchasing the Herbarium at a fair valuation, and depositing it at Kew as part of the Crown property and attached to the Royal Gardens".

Shortly after Sir William's death in August, 1865, a memorial signed by many eminent British botanists, strongly recommending the purchase and retention of his herbarium and library at Kew, was presented to the First Commissioner of Works. After protracted negotiations the Treasury purchased the collections in 1867 for £7,000; £5,000 of this total was for the herbarium which "was estimated to contain a million ticketed specimens, and was considered in extent, arrangement and nomenclature certainly the finest in existence; it had been upwards of 60 years in formation; there was evidence of upwards of £9,000 having been expended upon its formation by its possessor, exclusive of rent for its accommodation; and it must have cost a much larger sum!"⁸

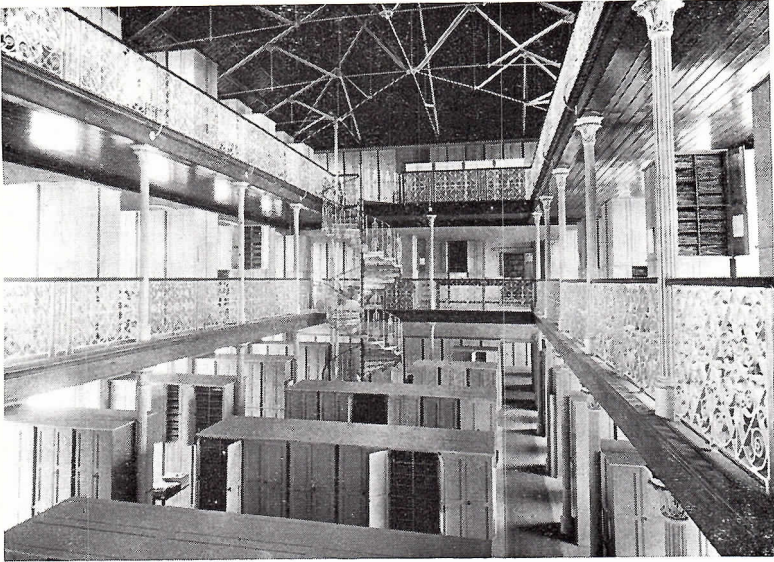
One must not overlook other acquisitions by Kew, made during Sir William's term of office. Amongst them must be included the following notable collections: "the enormous collection of plants made under the orders of the India Government by officers of their service, and which had been accumulating for thirty years in the cellars of the India House"⁹ (they filled eleven large wagons and included the important herbaria of Falconer and Griffith); Dr. John Lindley's orchid collection (3,000 mounted specimens) which was acquired in the same year (1865) that Dr. W. J. Burchell's sister presented her late brother's extensive collections (52,000 specimens) made in Brazil, South Africa and St. Helena.

This steady growth of the Herbarium continued under Joseph Hooker who followed his father as Director in 1865. In 1868, the herbarium and manuscripts of the French botanist, Jacques Gay, were purchased by Hooker himself and presented to Kew. It was not long, therefore, before Hunter House—only ever intended as

temporary accommodation—was full, and the Director urgently petitioned the Treasury for an extension to be built to the house. He was not altogether surprised to encounter opposition from the Cambridge family, who lived on Kew Green, because he had suffered their objections in other matters affecting the preservation of Kew Gardens. On this occasion the redoubtable Duchess was dead set against any alterations to Hunter House and the encroachment of its garden by the proposed extension. Hooker, however, not anticipating any difficulty in official quarters was dismayed when the Melon Yard was suggested by the Office of Works as a suitable site for the Herbarium. He found the proposal unacceptable. "The site is now fully occupied, partly for storing manures, soils, and refuse and partly for the cultivation of the plants used for the decoration of the Garden and Conservatories. It is the only piece of ground available for these purposes, and is no larger than is necessary for them . . . Being close to where the High Roads from Kew diverge to London, Richmond and Mortlake it is both noisy and dusty, hence wholly unsuited for a building devoted to collections, books and study."¹⁰ He emphasized the unsuitability of Hunter House as a home for any member of the royal family for "the grounds are rendered so obnoxious by the smells from the Gas and Soap-works at Brentford, that they never can be desirable for royal residences".¹¹ These tactics did not work, and in despair Hooker admitted defeat: "I shall propose that the building be abandoned, and express a hope that Her Majesty will graciously allow these collections to remain where they are, for the present at any rate".¹² At the same time he complained bitterly to Charles Darwin about what appeared to him to be the obstructive behaviour of Lord Lennox, First Commissioner of Works. "Meanwhile he [Lennox] is moving heaven and earth with the people about the Queen to prevent the Herbarium being kept in the Queen's private grounds [Hunter House gardens], for a small piece of which I have asked (as a site for the new building). He insists on my finding a site for it in the public part of the Gardens! which I absolutely refuse to do, except the Queen refuses a corner of the ground where the Herbarium now is".¹³

In the meanwhile, unknown to Hooker, the startling discovery had just been made that the late King of Hanover's residence did not belong to the Queen. It would appear that George IV had sold the house and grounds in 1823 to the Commissioners of H.M. Woods, Forests and Land Revenues for £18,250. On 16th October, 1875, Sir T. M. Biddulph, Keeper of the Privy Purse, wrote to Lord Lennox: "I explained the circumstances of the late King of Hanover's residence to the Queen, and if it is no longer a Royal residence at the Sovereign's disposal H.M. makes no further objection to its being used for, or converted into an Herbarium".¹⁴ Lord Lennox promptly communicated this decision to Hooker.

Hooker was jubilant and told Asa Gray, the American botanist, of his plans. "I shall retain the present building for the library and writing rooms, render them sufficiently fire-proof, and throw



Wing C soon after it was built in the 1870's. The decorative wrought iron work was removed some time later as it was a dust-trap.



The interior of the top floor of Wing D, which is furnished with metal herbarium cabinets with magnetic doors.

out an herbarium hall at the back in the same style of architecture that suits the site and surroundings."¹⁵ The drawing room, south room, kitchens and out-buildings were demolished to make way for the new wing which was opened in 1877.

Before his retirement in 1885, Sir Joseph Hooker was responsible for some further additions to the collections. In 1871 R. Wright presented his Indian herbarium, the result of thirty years' collecting. Between 1878 and 1882 the contribution of the mycological herbarium of the Rev. M. J. Berkeley, the mosses contributed by W. P. Schimper, and the lichens of the Rev. W. A. Leighton, greatly enriched the cryptogamic section of the Kew Herbarium. With all this material pouring into Kew it was inevitable that the new wing was soon to be full. The lower cryptogams were stored in the small room originally shelved by Sir Joseph Banks (now the Visitors' Room), with the Algae and Lichens in the small adjacent room, while the Ferns were kept in the present Keeper's Office. Work was started on a second wing (Wing B) in 1901 and was in occupation two years later. Electricity was not installed in the Library until 1904, and in the Herbarium wings several years later. Before the advent of electricity "a single oil lamp was lit on dark days in the Library and the Keeper took this with him at closing time and all the staff then had to disperse to their homes."¹⁶

A further extension was built in 1931-32 (Wing A), and the latest wing after years of careful planning and fortunate evasion of financial crises was completed in 1968. The detailed description of this wing is added as an appendix to this article.

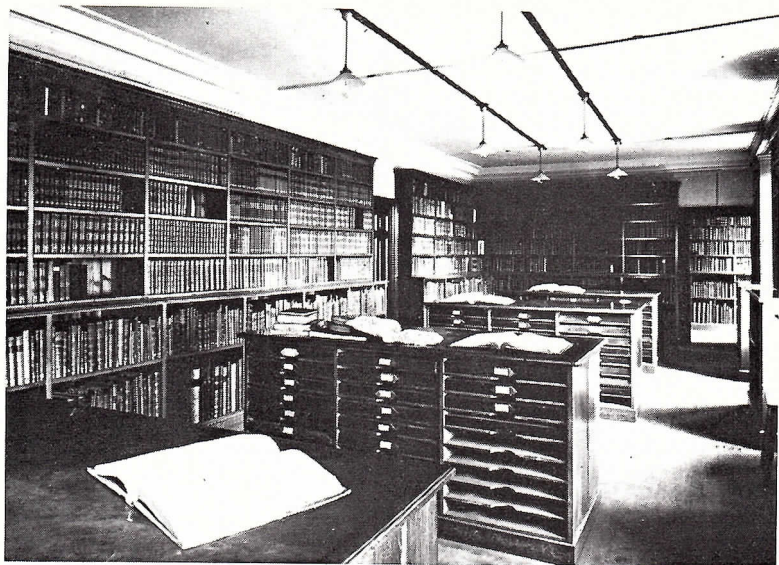
Additions are still made to the Kew Herbarium at the rate of 50-60,000 specimens a year. The collection of between four and five million specimens, including some 200,000 types, represents a high proportion of all known species, and the Herbarium can justly claim to be one of the largest in the world. The flowering plants are arranged in general according to the classification of Bentham and Hooker's *Genera Plantarum*. A revision of this classic work is now being produced by Dr. John Hutchinson in his *Genera of Flowering Plants* (1964-), based on his phylogenetic interpretation of the plant kingdom. Dr. Hutchinson is one of the most distinguished of former Kew gardeners. He came to Kew as a student gardener in 1904, and within a year was transferred to the Herbarium where he acquired the knowledge and skill which has made him pre-eminent amongst taxonomists. Other former gardeners who were to excel in taxonomy were W. Botting Hemsley, employed at Kew in 1860 as an improver, eventually becoming Keeper of the Herbarium and Library from 1899-1908, and Dr. C. E. Hubbard, Keeper of the Herbarium and Library from 1957-1965, and the world's leading authority on grasses.

The Herbarium has provided source material for the compilation of the well-known Kew floras. In 1863 Sir William Hooker proposed to the Secretary of State for the Colonies a series of Colonial and Dominion floras to follow A. H. R. Grisebach's

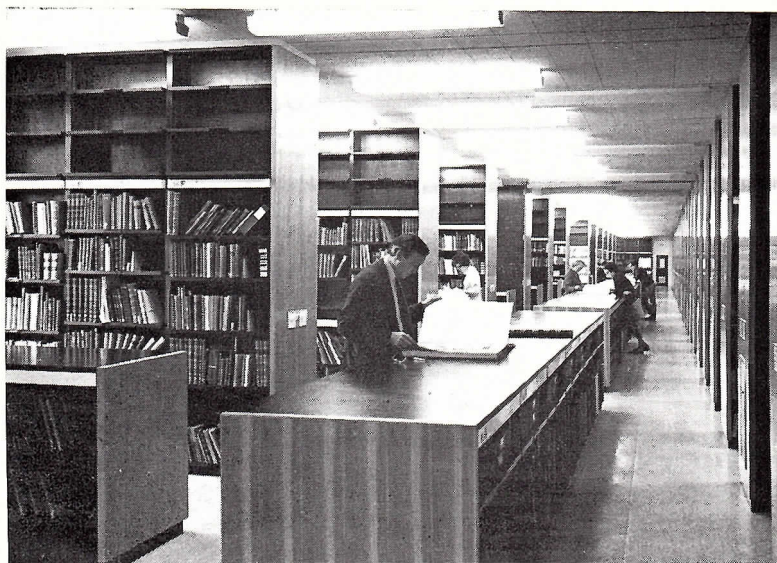
Flora of the British West Indian Islands (1859-64). Almost all the floras he suggested have now been published; those still under compilation or revision are the *Flora of Tropical East Africa*, *Flora of West Tropical Africa*, *Flora of Iraq*, *Flora of Cyprus*, and participation in the *Flora Zambesiaca*. The results of other taxonomic research conducted at Kew are normally published in the *Kew Bulletin*, founded in 1887. The *Botanical Magazine*, established by William Curtis in 1787, and now the oldest botanical magazine still being published, has been edited at Kew since 1841. The flower paintings, the great attraction of this periodical, are reproduced mainly from the work of botanical artists based at Kew since the death of the great Francis Bauer in 1840. *Icones Plantarum*, founded by Sir William Hooker in 1836 for the purpose of describing interesting plants in his own herbarium, has now reached 37 volumes and appears under the Kew imprint. *Index Kewensis*, an indispensable reference work for all plant taxonomists, first appeared in 1895 as the result of a suggestion made by Charles Darwin that Kew should undertake the much needed revision of Steudel's *Nomenclator* (1840). It is a vast index to names and authors of genera and species of flowering plants, kept up-to-date by five supplements yearly. Much of the information is culled from the literature resources of the Kew Library which performs a vital role in the activities of the Herbarium.

George Bentham believed that "it is absolutely necessary for the good use of a herbarium that it should be in close connection with a good botanical library. A botanical library is useful without a herbarium, but not a herbarium without the library".¹⁷ Sir William Hooker very early in his career realized the necessity of a library, and during his long life collected a prodigious number of books and related material. In January, 1860, he was given permission by the Office of Works to employ Dr. Daniel Oliver, an assistant in the Herbarium, as a cataloguer. On 1st April, 1860, Dr. Oliver was appointed Keeper of the Library and Drawings Collection at a weekly salary of £2, provided he continued his lectures to the young gardeners. When ill-health compelled Allan Black to resign the Curatorship of the Herbarium in 1864, Dr. Oliver was appointed Keeper of both the Herbarium and Library, a post which he held until his retirement in 1890. The nucleus of an official library was formed in 1852 with the presentation by Miss Bromfield of her late brother's library. It was a small but well-chosen collection of about 600 volumes, notable for the number of fine copies of earlier botanical authors. Two years later George Bentham handed over his large botanical library, which included many standard texts.

In 1867 the Treasury sanctioned the purchase of such of Sir William's books as were needed for the Kew Library, which thereby acquired some exceedingly rare and valuable items such as the large colour plate works of Martius and Jacquin, and Sibthorp's *Flora Graeca* of which about only 70 copies were published. In the magnificent *Flora Graeca* the impeccable draughtsmanship of



The old top front library on Hunter House.



The main library floor in Wing D with rose-wood shelves and Cedar of Lebanon facings.

the botanical artist, Ferdinand Bauer, is matched by the technical virtuosity of the engraver, James Sowerby. An important part of Sir William's library was a topographical collection which boasted many classics of travel and exploration. Also acquired was a collection of just over a hundred portraits of botanists in the form of drawings, engravings, silhouettes and medallions. Later bequests included the library of John Ball (1889), the first President of the Alpine Club—his library was outstanding for its coverage of the European flora; in 1892 Thomas Hanbury of La Mortola, Italy, presented a selection of books from the library of his late brother, Daniel Hanbury, a well-known pharmacologist.

For many years the library was kept in Hunter House itself; in 1877 the small front rooms on the first and second floors were made into two big rooms each about 40 feet long, thus permitting many scattered collections to be brought together.

Although the library in the main reflected the interests of taxonomists, the basic needs of the young gardeners were not altogether ignored. As far back as 1826 that far-sighted man, J. C. Loudon, was deploring the lack of library facilities for gardeners at Kew. In 1838 the Treasury was advised that "it would be desirable that a small library should be maintained in each Garden [Kew, Kensington, Windsor, etc.], to which the young men employed in them could have reading access, and which would add very little to the expense of the Gardens".¹⁸ On the appointment of Sir William Hooker in 1841, a small separate library was created for the gardening staff. In 1846 the First Commissioner of Woods and Forests, the Earl of Carlisle, gave £10 for books for the gardeners. At first they were kept in an old office in the Gardens, but in 1848 a foreman gardener's residence, now the Director's Office, was partially converted into a reading room which was open in the evenings. In 1863 a new reading room was built adjacent to the Director's Office, and in 1898 the Library was transferred to its present home in Descanso House.

Through the years the Kew Library has been made as complete as possible by gift, exchange and purchase. In his will George Bentham left a substantial part of his estate to Kew for, among other things, "the purchase of books", and it is largely due to the generosity of the Bentham—now the Bentham-Moxon—Trust that so many gaps in the Library have been filled. The Trust have always been ready to buy rare and often expensive books when they have become available. Their presentations include the three *Hortus Sanitatis* of 1490, 1491 and 1496, Conrad von Megenburg's *Buch der Natur*, 1482 (the first edition of this work in 1475 was the earliest printed book to contain woodcuts of flowers which related to the text and were not merely decorative embellishment), J. Parkinson's *Paradisi in Sole Paradisus Terrestris*, 1629 (this was one of the main sources of information on seventeenth century planting material for the new Queen's Garden), and Redouté's *Choix des Plus Belles Fleurs*, 1827-33. The oldest printed book in

the Library is Petrus de Crescentiis's *Ruralium Commodorum Libri Duodecum* of 1471, a practical manual on agriculture and horticulture, printed in elegant Gothic script.

The Library now totals some 100,000 volumes covering plant taxonomy, anatomy, physiology, cytology, economic botany and horticulture. Some very important ancillary collections must be mentioned and, here again, the Bentham-Moxon Trust have been constant benefactors. In 1898 the Trust purchased a fragment of Sir Joseph Banks's correspondence, formerly the property of Lord Brabourne. In view of Banks's long and close association with Kew this was a particularly welcome acquisition. The archives at Kew now number about 250,000 letters and other manuscripts. The largest single collection is that of Sir William Hooker with about 29,000 letters from over 4,000 individuals. Sir William assessed his collection thus: "The letters are from nearly every botanist of eminence during the last 60 years . . . I know of no person who has conducted a foreign correspondence upon scientific subjects so extensively as myself . . . I further believe that it contains more material for the history of botanical science and its progress during the present century, than any other documents whatever".¹⁹ The Kew archives are not exclusively botanical in content or interest. Many early plant collectors were explorers in their own right, and their letters giving graphic and often detailed accounts of the country in which they were collecting provide rich mines of information for the historian and geographer. The oldest manuscript that Kew possesses predates the invention of printing in the middle of the fifteenth century. It is a combination of a herbal and bestiary, probably written with devoted care by a monk, round about 1370. Its spiky Latin script is frequently punctuated by small delightfully naïve drawings of mythical creatures and stylized vegetation

The collection of flower paintings, engravings and photographs now numbers about 160,000 with examples of the work of many distinguished and skilled botanical artists. From time to time special collections have been acquired. In 1880, 3,359 drawings of Indian plants, including those prepared for William Roxburgh, were transferred from the India Office to Kew. In 1966, the Library acquired a further collection of 394 Indian drawings assembled by Dr. Heyne, a contemporary of Roxburgh. More recently, in 1969, about a hundred drawings by Ann Lee were presented. She was the daughter of James Lee, co-owner with John Kennedy of the celebrated eighteenth century nursery at Hammersmith, and her drawings are a valuable historical record of the plants in her father's nursery, many of them new introductions from North America and South Africa. Through the presentation in 1916 of 67 drawings belonging to Sir Arthur Church, Kew can boast examples of the work of early flower painters such as Simon Verelst and Justus van Huysum. The Bentham-Moxon Trust made two particularly important contributions: in 1887 the splendid drawings of Bromeliads made for Dr. Morren of Liège, some of which are of an

impressive size, and in 1932, 648 drawings which were done in the eighteenth century for the 4th Earl of Tankerville. Among the latter are some superb water-colour drawings on vellum by the incomparable G. D. Ehret, and a number by the obscure but, nevertheless, competent Simon Taylor. In 1854 Mr. Atwell Smith, the natural son of John Aiton, presented over 2,000 drawings by George Bond and Thomas Duncanson, two young gardeners who were employed by W. T. Aiton to draw the plants in cultivation at Kew from about 1822 to 1835. Additions are still being made to the drawings collection, principally through the work of the resident botanical artist, and the plates which are figured in the *Botanical Magazine*.

The ambition of Sir Joseph Banks long ago to create a herbarium and library at His Majesty's Royal Gardens at Kew has gradually been realized over the years : by purchase or presentation the acquisition of plant specimens, books, manuscripts and drawings has proceeded at a steady pace. The Herbarium continues to manifest a healthy growth and both in quantity and quality it is second to none. It has become an international centre for taxonomists who have reason to be grateful for the vision and dedication of the two Hookers, father and son, who laid such firm and enduring foundations.

APPENDIX

A Brief Description of Wing D

Wing D, which was planned during the Directorship of Sir George Taylor, marks a departure from the "well" design of the other three wings, and, furthermore, is air-conditioned. It consists of four floors :

Semi-basement. General stationery stores, library store for runs of little-used periodicals, mounters' room, and spirit collection. This collection which supplements the herbarium of dried plants now amounts to more than 30,000 glass jars containing flowers and fruits in liquid preservative. This method is essential for preserving large fleshy fruits or plants such as orchids, the structure of whose flowers is difficult to interpret after they have been dried.

Ground Floor. Staff room and kitchen, photographic studio, laboratory, mounters' room, library servicing room, botanists' offices, archives room (this unique collection of letters and other documents is kept separate from the main library for security reasons), and map and travels room. This latest room contains everything relating to topography in its widest connotation : books of travel and exploration, geographical periodicals, gazetteers, and a map collection of about 9,000 sheet maps.

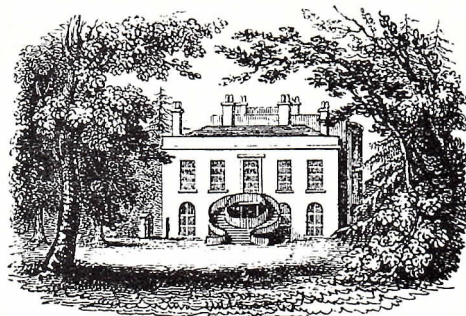
First Floor. The Main Library. The furniture was specially designed by the Ministry of Public Building and Works, and

Messrs. Heal's constructed the elegant bookcases, faced with rose-wood and cedar of Lebanon veneers. Just over 11,000 feet of shelving have been installed of which about a quarter has been reserved for future expansion. There is seating accommodation for 38 readers. Also on this floor are offices for the Librarian and his deputy, the *Index Kewensis* staff, and the comprehensive Kewensia collection which contains books, manuscripts, illustrations, and plans relating to Kew's history over the past two centuries.

Second Floor. Herbarium for fungi, ferns and monocotyledons, also an extensive carpological collection of bulky fruits which cannot easily be pressed. Books and periodicals concerning fungi, ferns and grasses are housed on this floor. Four botanists' offices and a mycological laboratory are provided.

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Rear of Hunter House before the addition of the first extension, Wing C.

THE OPENING OF THE NEW HERBARIUM WING
BY HER MAJESTY THE QUEEN

R. D. Meikle

Nothing like a Royal visit for smartening things up! Outside the Herbarium the grass was mown and re-mown as never before, paths were weeded, edgings trimmed, gates oiled, and the accumulated debris of many autumns swept from corners and hedge-bottoms. An ancient fire-extinguisher, ignored for decades, was removed, polished and returned gleaming to its freshly painted casing. Only one pathetic casualty: the little bush of *Pernettya mucronata* which, to the delight of the observant, had survived winter frost, summer drought and toxic fumes high up on the Herbarium Gas-chamber wall, wedged between a "Speed Limit" notice and the adjacent brickwork, was untimely ripped from its precarious abode.

Inside the Herbarium the cleansing and refurbishing went ahead with speed, fervour and efficiency which would have been the more praiseworthy had it been rather less unusual. By May 14th all was shipshape and spotless—not a single blemish to attract the unfavourable attention of the Royal eye. Palms sprouted at landing corners, as tactful pointers to the chosen route, and the entrance vestibule, unbending in its austere modernity, became, for a few hours, a floral hall, with steep-raked pyramids of gay greenhouse flowers. The weather alone was sullen, not wet, but uniformly grey and unsmiling, when a few gleams of sunshine would have gilded the scene, and been no more than fair recompense for such ungrudging preparations.

The motorcade arrived just a few minutes before the appointed 3.30 p.m. First the Director, to guide the way and to greet Her Majesty on the entrance steps of the New Wing. And then the Queen, trim and dignified in a peacock-blue coat and matching cupuliform hat. Though "work as usual" had been the order of the day, it seemed as if rather more than half the Herbarium staff, and virtually all its female element, had accidentally strayed to the entrance platform just as the cars arrived, and now stood there smiling as the ladies and gentlemen bowed and curtsied on presentation.

These formalities over, the Queen unveiled the commemorative plaque in the vestibule, and, in one brief moment, made official the opening of an edifice which had been for so many years the focus of Herbarium hopes and aspirations.

The tour began. The Queen, now conducted by Mr. J. P. M. Brenan, Keeper of the Herbarium and Library, and Deputy Director, passed first from the vestibule of the New Wing into the long, ship-like perspectives of the Ground Floor corridor, breaking the journey at the Orchid Room, to see the general lay-out of a modern herbarium, and to admire, in this world of dead and

desiccated plants, a very striking display of living orchids, thoughtfully provided by the Gardens for this special occasion. Here also, amongst other exhibits, was "From Field to Flora", a demonstration specially designed to show Her Majesty, in the brief time available, all the various techniques that contribute to the classification of plants—collecting equipment, specimens, herbarium methods, manuscripts, illustrations and published works.

Then upstairs to the grandest part of the building—the new Library—a vast hall of mellow brown and black bookcases, opening on one side into spacious alcoves, each with extensive (and sometimes distracting!) vistas across the River Thames. A suitably magnificent setting for an unrivalled library of botanical literature. Mr. R. Desmond, Librarian and custodian of these riches, was first presented to the Queen, and then the party, preceded by a frenzied huddle of press photographers, moved slowly down the length of the great hall. Poor Miss Stammers, under orders to stay put at her solitary desk right in the middle of the main aisle, and blanching visibly as the prospect of Majesty descending became, second by second, more imminent, was, at the very last moment, surrounded and screened by these gentlemen from the press, who scrambled and struggled for a better shot, regardless of decorum or the fine new furnishings. There were more exhibits in the Library: ancient herbals and splendid iconographs, modern flower paintings by Kew's official artist, Miss M. A. Grierson, and two recently acquired portraits of the first two Directors, Sir William and Sir Joseph Hooker, father and son, through whose industry and exceptional talents the Royal Botanic Gardens were restored to prosperity and lasting fame.

Before leaving the Library, the Queen paused to watch, with evident enjoyment, the activated display of lantern slides, showing views of Aldabra and some of its strange animals and plants, all photographed by Mr. S. A. Renvoize on his recent visit to this little-known island. It was perhaps fitting that Her Majesty's tour should end with "Plants in Danger", an exhibit by Dr. R. Melville, stressing the need for plant conservation, and showing what can happen if natural wild-life reserves, like Aldabra, are wantonly despoiled.

The Queen passed through the East door of the Library and downstairs to the entrance vestibule where the tour had begun. A few minutes later and the motorcade could be seen winding round the back of the new Wing D, past Wing A (until a few months ago "the New Wing") and out of the Herbarium gates across to the Main entrance to the Gardens.

THE QUEEN'S GARDEN

R. W. King and J. P. M. Brenan

The building now called Kew Palace did not get that name until the nineteenth century, being previously known as the Dutch House, a title which accorded well enough with its style and origins. Its royal association began with its use as an annexe to the much larger seventeenth-century building called the White House, largely rebuilt by William Kent in the eighteenth century, which lay to the south on a site now marked by a sun-dial. The White House was until 1802 the Kew residence of King George III (as it had been of his father and mother) and it was when his family outgrew it (he had fifteen children) that the Dutch House was used as an annexe for the elder boys, the Prince of Wales and the Duke of York. In 1802, when these princes were grown men, King George decided to build himself a Gothic palace (never finished) and, in anticipation of its completion, to pull down the White House. Meanwhile he moved to the Dutch House and it became his Kew residence. Later the King's sickness necessitated his removal to Windsor, but his consort, Queen Charlotte, continued to occupy the house from time to time until her death there in 1818.

The rich merchant who built the house commemorated the event, in the style customary at the time, by having his initials and the date inscribed on it. These may be found over the entrance on the south side of the house, as follows : 16^F_{SC} 31. The initials



A View of the PRINCES HOUSE at Kew.

A print of the north side of Kew Palace as it appeared in a rural setting in the eighteenth century, by Paul Sandby.

stand for Samuel and Catherine Fortrey. The Fortreys were of Dutch origin, and Samuel was born on shipboard when his parents were crossing from Dieppe to England seeking asylum in Britain from Spanish persecution in the Low countries.

The Palace is an attractive red brick building 70 feet long and 50 feet in depth. The brick is laid in Flemish bond (i.e. with the sides and ends of the bricks alternating) which was a new fashion in England at the time. The brickwork shows great skill and artistry—one of the features of the house is, indeed, the brickwork ornamentation such as the rustication round the windows and the “orders of architecture” which surmount the main entrance. The style of the house seems to have appealed only to a limited class, which rejected alike the new classical fashions of the court, inspired by Inigo Jones, and the traditional styles which still persisted elsewhere. For them gabled brick houses like Kew Palace were built. The Palace is characteristic of the group and is its earliest dated representative.

There is no evidence of any previous garden on the site which has now been developed. The earliest illustrations, which date from the eighteenth century, show the land between the Palace and the river as a tree-fringed grazing paddock with paths or roads. In latter years trees and shrubs seem to have been scattered over the whole area. The “Dairy House” which may have preceded the Palace is referred to in ancient documents as having “two gardens or orchards and a rood of pasture”, but it seems likely that the area between the Palace and the river had never been a formal garden, perhaps because it would have been subject to flooding at the highest tides before the river embankment was made up.

In the 1950's the area had become an eyesore, being occupied by semi-derelict allotments. Sir George Taylor, Director of the Royal Botanic Gardens, distressed by the existence of such a squalid area adjacent to one of the finest buildings in the Gardens and a Royal Palace at that, conceived the notion of constructing a garden there of a style contemporary with the building and stocked as far as possible with plants of the time. The garden opened by Her Majesty the Queen on 14th May, 1969, was the practical realisation of Sir George's idea.

A study of the principal authorities on gardens of the early seventeenth century led to the conclusion that, while many Elizabethan features were still popular, there had been a tendency for gardens to become more open, particularly near the house, so that views across the garden could be obtained from rooms of the house. The fantastic and numerous beasts and columns of Tudor days had begun to disappear, fountains and summerhouses were of better design, and irregularity of ground and levels had begun to be used to advantage. True designs had begun to carry more weight than ostentation, and in some gardens effects of considerable subtlety and sophistication were being achieved. At Ware Park in Hertfordshire, for example, Sir Henry Fanshawe “did so precisely

examine the tinctures and seasons of his flowers that, in their setting, the inwardest of those which were to come up at the same time should always be a little darker than the outmost". He sowed his seeds "for a kind of gentle shadow, like a piece not of nature, but of art".

A number of visits were paid to other gardens where it was thought layout and structures might survive which would help in recreating the seventeenth century flavour. The most useful of these gardens from the point of view of surviving evidence was that of Packwood House in Warwickshire, a National Trust property. Assistance was also provided by the National Trust for Scotland, who made available not only their experience in constructing and furnishing a seventeenth century garden at Pitmedden in Aberdeenshire, but also provided some 1,500 cuttings of box—a shrub surprisingly difficult to obtain in quantity in the 1960's in spite of its past popularity.

Eventually researches were crystallised into a plan. This envisaged the main part of the garden behind the house occupied by a parterre with a fountain, having a pleached alley on the east side leading to a mount crowned with a rotunda, and a sunken garden on the west side surrounded by a raised walk. Visitors would enter the garden from the front of the house via a walk formed of ornamental brickwork passing by and forming the inner side of the sunken garden and terminated at the far end in a gazebo.



The Queen's Garden viewed through the ornamental iron work of the rotunda.

The plan did not set out to provide an exact replica of the kind of garden a house like Kew Palace might have had adjoining it in the seventeenth century. A large part of such a garden would have been devoted to fruit trees for the family. It aimed rather at showing, arranged as pleasantly as possible, such of the features of seventeenth century gardens as could be got into the area available without undue overcrowding. Not all the items included would necessarily have been found associated near the house in actual gardens of the time.

As the site is small (less than one acre) and enclosed by walls without any view beyond the boundary which could be exploited, it has had of necessity to be developed as a domestic garden. The Dutch connections of the Palace suggest that there should be a Dutch flavour about the garden. The parterres of the Dutch were usually straight-sided and very simple in their geometrical composition, unlike the greater extravagancies of the "parterre de broderie" of the French, but it is, in fact, a design from a French garden which has finally been used—a small section of the gardens at Verneuil as illustrated by du Cerceau in Plate LXVIII of *L'Art des Jardins* by Georges Gromort (1934).

It has been possible to incorporate in the parterre, as the central adornment, a very fine Venetian well-head, which was given in 1958 to Sir George Taylor by Sir John Ramsden for use in the Royal Botanic Gardens and came from the garden of his house at Bulstrode Park, near Gerrards Cross, in Buckinghamshire. The well-head has been provided with a graceful wrought-iron superstructure designed by Mr. L. S. Grundy and Mr. Peter Holland, the architect of the Ministry of Public Building and Works in charge of the building operations involved in the making of the garden.

From the beginning it was envisaged that the fountain included in the parterre should be embellished with a piece of statuary but for some time nothing suitable could be found. Eventually, however, Mr. Holland located in the Victoria and Albert Museum an object ideally suited for the purpose — a cast of Verrocchio's "Boy with a Dolphin" in the Palazzo Vecchio in Florence. The original is mounted on a stone ball with carved lion masks and this most suitable and elegant mounting has been adopted for the copy made in bronze for Kew.

A further adornment of the parterre was found within the resources of the Royal Botanic Gardens. For a number of years five "terms" (carved stone heads each on its own pedestal) stood within the curve of a hedge at the south end of the Palm House. This was not a particularly suitable site for these rather pleasing objects, which were unrelated (at least in recent times) to anything in the vicinity. Their origin has been lost but they may date from the period of William Kent (the first half of the eighteenth century), there being similar ornaments at Chiswick House definitely known to date from that time. Although somewhat later than the period

of the garden they are not dissimilar from the kind of decoration found in Elizabethan and Jacobean gardens. They have been moved into the new garden to stand in front of the yew hedge at the far end of the parterre from the house.

Shaded alleys were an indispensable part of the garden of the period, and on the east side this requirement has been met by an avenue of hornbeams. At the present time the alley is in process of formation. As the trees gain in vigour they will be trained over the wires and cut or "pleached" to form a continuous roof over the head of those who walk along the alley. The "boskage" so formed will provide a pleasant refuge from the heat of summer, but it also serves a further purpose—it leads to the "mount", another indispensable part of an early seventeenth century garden. A statue, "Satyr with a Flute", which formerly stood in the Orangery at Kew, has been moved to a suitable position just before the mount where the transverse path from the parterre joins the alley.

The "mount" of ancient gardens derives from the time when it was customary to provide in the enclosed gardens of monasteries or castles, some means of looking over the wall to the world outside. They continued in use to provide a vantage point for views over the garden or surrounding countryside long after the original utilitarian purpose had given way to more ornamental considerations. Indeed, old William Lawson, who published his *New Orchard and Garden* in 1618, used to fish from his. "You might sit on mount" he says, "and angle a peckled trout, sleighty eel, or some other dainty fish"! By a stroke of good fortune a small hillock of ashes from the glasshouse furnaces was already present on the site, in the north-east corner, before the new garden was contemplated. This hillock was ideal in size and situation for conversion to a mount and this has accordingly been done. It is off the centre line of the garden and serves not only as a vantage point for the visitor to see both the garden and the house but as an alternative situation to the Palace windows from which photographs can be taken looking down over the whole scene. From it, too, is a view over the river.

Access to the top of the mount is provided in the manner of old gardens by a spiral box-edged path, which leads up to a wrought-iron rotunda treillage. It did not prove possible to find any surviving example or contemporary drawing of such an ornament and the attractive structure which has been erected was designed by Mr. L. S. Grundy in collaboration with Mr. Peter Holland. Motifs showing the national plants of England, Scotland, Wales and Ireland are incorporated in the design.

The west side of the garden includes the portion at the side of the house through which the public have access to the garden. This has been enclosed with an elegant boundary wall and iron-work gates reminiscent of those at Ham House. The brick-paved courtyard, path and internal walls of ornamental brickwork have been completed in contemporary designs taken from surviving

examples. The path leads on to the sunken garden, which is surrounded on the raised walk by another shady alley, this time of laburnums, trained on ironwork the design of which was drawn from Greys Court, Henley-on-Thames. At the north end of the sunken garden is an object as indispensable in any ancient garden as the shaded alley and the mount—a chamomile turfed seat.

The centre of the sunken garden is graced by an interesting find by Mr. Holland. This is a wrought-iron pillar which is thought to have been a gate-pier. It has been stored for a number of years by the Ministry of Public Building and Works, having come to light between the wars at Hampton Court, although it may not have originated there. Its origin cannot now be established but it is certainly an object like those which may be found in seventeenth-century gardens, where such pillars were common ornaments.

Passing by the sunken garden the path leads on to the gazebo under the river wall. This pleasing small building has been designed from a surviving gazebo at Packwood House and again is an indispensable object for a garden of the period. Another authentic touch is the cobbled surround in the parterre. Ladies may find the cobbles not easy to negotiate in high heels, and this aspect of the design may not be popular! In the main, however, paths are of gravel, partly because of the shady nature of the site (turf paths would be unlikely to dry out quickly enough) and partly because this was a standard surfacing for paths in gardens of the time, turf paths being less common.

In considering the plan for the garden it became clear that it would be a very great improvement if the doorway and steps which formerly existed on the north side of the building could be restored. A watercolour drawing of the building at Windsor made by Paul Sandby in 1776 showed that the steps did not extend the full width of the façade of the arcaded loggia, which has three bays, but were confined to the width of one bay. They have been built to conform with the drawing.

A new garden containing so many architectural features could not have been constructed without the expenditure of a substantial sum of money. It was indeed, far easier and cheaper to find the plants to stock the garden than to finance the building work required. The overriding necessity for financial economy slowed down the work in the earlier stages but by a fortunate chance a private donor, Mr. Stanley Smith, offered a very substantial sum to defray half the cost of part of the work (mainly the restoration of the doorway and steps of the Palace) if the other half could be found from official sources, and this generous offer was accepted. The offer was conditional upon the work being completed during the Directorship of Sir George Taylor. By a tragic mischance the donor did not live to see his wishes carried out, but died suddenly in the summer of 1968.

Financial assistance was also received from another source. The cost of making the ironwork superstructure of the Venetian well-head (£425) was defrayed from the Kew Bicentenary Fund,

a fund set up with the money received from the appeal made at the Bicentenary of the Gardens in 1959, and which is administered by the Trustees of the Bentham-Moxon Trust, a private Trust whose funds are used for the benefit of Kew.

Today, the efforts to bring the original idea into being as a living garden are at an end, but an end which is really only a beginning. Planting began as long ago as 1964 but it takes a number of years to establish pleached alleys and adequate hedges. Much careful horticultural work has still to be done before the garden will begin to approximate to the picture in the mind's eye of its creator. It is undoubtedly a very notable asset to the attraction of the Royal Botanic Gardens, and will afford pleasure and instruction to innumerable visitors in the future. The ironwork of the Venetian well-head includes the initials "GT" to commemorate Sir George Taylor. This garden is his brain-child and it is to his untiring efforts that the magnificent results are largely due.

The plans could not have been brought to fruition without the co-operation of many others of whom only a few can be mentioned by name. Mr. G. J. E. Yates, former Assistant Curator of the Royal Botanic Gardens translated many of Sir George's ideas on details into practical plans and then into reality. Mr. Peter Holland and Mr. John Gorvin of the Ministry of Public Building and Works designed a great deal of other work. The wrought ironwork, contrived by Mr. L. S. Grundy and Mr. Holland, is a splendid example of modern British design and craftsmanship. Others of the staff of the Royal Botanic Gardens and the Ministry of Public Building and Works, and of the various contractors who carried out the design, gave of their best. They helped to create such a garden that visitors will say of it, in the words of old William Lawson (who might, like Gerard and Parkinson, have been read by the Fortreys) : "What more delightful than an infinite variety of sweet smelling flowers, colouring not only the earth, but decking the ayre, and sweetening every breath and spirit?" The love of plants which infused the minds and hearts of the old gardeners survives still amid the turmoil of the modern world, and the existence of the newly-created Queen's Garden is proof of it.

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PLANTS IN THE QUEEN'S GARDEN

B. Halliwell

The seventeenth century saw the beginning of a definite style in horticulture. Although the art of gardening had been introduced to England by the Romans, it had declined and become an adjunct to agriculture, with fruit trees and vegetables cultivated along with cereals and other crops. Before the seventeenth century some plants were probably grown in cottage gardens, but gardening on any scale was practised only in the grounds of monasteries where medicinal plants were cultivated for use in these centres of healing.

During the seventeenth century two distinct types of layout were developing—the formal and the informal. The knot gardens of the previous century had been influenced by the changes which had taken place on the continent, and had developed into more elaborate geometrical designs called parterres. The herb garden still existed, but over the centuries this had come to include all kinds of plants. At this time, however, a gradual separation into four sections took place: vegetable garden, orchard, herb garden, and nosegay garden, but such divisions were not hard and fast.

Country estates had to be self-supporting and the garden supplied the household vegetables and fruit. Herbs, which are today considered to be a sophisticated part of cookery, were absolutely essential three hundred years ago, when storage facilities were primitive, and food quickly deteriorated in warm weather. Liberal quantities of herbs and spices were added during cooking to disguise the flavour of tainted meats.

In the seventeenth century herbal remedies were the only medicines, doctors were few even in the towns, and every country housewife had a rudimentary knowledge of how to administer these remedies in order to treat illnesses. Hygiene was not considered important. People washed infrequently, there was no sanitation, and with windows small and rarely opened, the unpleasant smells had somehow to be masked. For this purpose plants with fragrant foliage, both dried and fresh, were strewn on the floors of the houses.

In towns drains and runnels were few, if present at all, and slops thrown out into the street with household rubbish combined with the excrement of transport animals in the general filth. When out walking, ladies would carry posies of pleasantly scented flowers and foliage which they held to their noses, hoping to forget the stench of the narrow streets. During time of plague, everyone would carry nosegays, for they were thought to give protection against the pestilence.

In earlier centuries the gardens of the large houses were mainly workplaces for the gardeners. On the continent the elaborate parterres were meant to represent living tapestries which were to

be viewed from a distance, such as from a raised walk, balcony or second storey window, and the gentry or their ladies would not take their leisure in the garden. In England the parterres did not develop to the same extent, and through the seventeenth century more and more gentlemen came to regard gardening as a pastime, along with other out-door pursuits such as hunting, shooting and fishing. This interest fostered competition, so that owners of estates tried to design and lay out gardens that were superior to those of their neighbours. The contents of the garden also became part of the competition—not only the fittings and furniture, but the plants as well. The few plant nurseries in existence were sacked for their treasures, and increasing numbers of new nurseries sprang up around London. Wealthy patrons began to look to other countries for new plants for their gardens, and thus the first collectors were sent out to satisfy this need.

Gardening books, which catered for this new pastime, also began to appear and by browsing through these old books we glean some knowledge of the plants which were cultivated in gardens of that period. These books listed the plant names in both English and Latin, and also often gave the countries from which the plants had been introduced and perhaps even a description and illustration of the plant in question. Most books mentioned the uses of the plants, and some told how they should be grown and even the methods of propagation. When reading these books it became obvious that plants were still considered as strictly utilitarian and few were grown just for their beauty. Gerard's *Herball*, for instance, was published in 1597 with a new edition in 1633 and a reprint in 1636. In addition, Gerard also published in 1596 and 1599 two lists of plants that he grew in his garden. Parkinson's *Paradisus in Sole* followed in 1629, and this also ran into several editions. Sir Thomas Hanmer wrote his *Garden Book* in 1653, although it remained as a manuscript until 1932. John Evelyn is famous for his *Diaries*, but he also wrote a number of works on gardening and of these his most famous are *Flora*, *Ceres* and *Pomona*.

The first botanical garden in England was founded in 1621 at Oxford, with that at Edinburgh following in 1670. Gardening, therefore, made its real start in this country in the seventeenth century.

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The Seventeenth Century Garden at Kew, now known as the Queen's Garden, is divided into two parts, one formal and the other informal. The latter takes the form of a "nosegay" garden into which some few culinary plants, such as herbs, have been introduced. This is a sunken garden of which the banks are clothed with what today we would call "ground-cover plants". These have been specially selected and planted to keep the banks together and yet to demand the minimum of maintenance. All the plants are labelled and each label carries the botanical name, and common



DIGITALIS *purpurea* L.

Original water colour drawing of the Foxglove (*Digitalis purpurea*), by G. D. Ehret (1708-70), one of the treasures of Kew Library. Although a wild British plant, the foxglove has long been grown in flower and herb gardens.

name used three hundred years ago, and also the date of introduction of the plant (or the date of the first reference to its cultivation), with a note of the use to which the early gardeners put the plant.

Several varieties of both the greater and lesser periwinkle (*Vinca major* and *V. minor*) were grown in the seventeenth century. They varied in colour and were single or double. It may well be that these are the same as those we grow today under different names. The leaves of periwinkle were recorded as a cure for toothache, and members of Kew staff who have tried this remedy have found it to be efficacious.

Sage (*Salvia officinalis*) was a popular plant used both in flavouring and nosegays and as a strewing herb. "Sage is singularly good for the head and braine and quickeneth the senses and memorie" says Gerard. Many kinds are grown, including forms with colour variation in both foliage and flowers. The white flowered form was called "Herbe of virtue".

Thyme (*Thymus* spp.) had so many uses that Parkinson records "To set down the particular uses whereunto Time is applied were to weary both the writer and the reader". It was used in much the same way as sage, but was more important in medicine. *Thymus vulgaris*, the common thyme, was then called "Hard Time", and growing with it in the Garden are two variegated forms of *T. serpyllum*, the common creeping thyme (var. *versicolor*, the gilded thyme, and var. *argentea*, the silver embroidered thyme).

Artemisia absinthium is an attractive, grey-leaved plant of which the specific name is used for a kind of addictive drink common in France. Its English name, wormwood, comes no doubt from its use in purging children of worms. A rather more amusing use for it is recorded by Parkinson "for one suffering from nocturnal goblin visitors", and it also "keeps away fleas"; one wonders if there was any connection between the two.

Woodruff (*Asperula odorata*) has a fragrance which is intensified when the plant is dried, and it was, therefore, strewn on the floors. It was also used to stuff pillows in order to induce sleep.

Hyssop (*Hyssopus officinalis*) was another herb with many uses. It was employed in edging beds in knots and parterres, for flavouring, in nosegays, as well as an ingredient of Chartreuse and Eau de Cologne. Parkinson records that an oil was made of the flowers "being annointed both comfort benumbed sinews and jointes". Three distinct flower colour forms are to be seen in the garden.

Yarrow (*Achillea millefolium*) is now considered a weed, although some of the colour forms are worth including in the herbaceous border. In the seventeenth century it was more prized for its curative properties, since "one dram of powder of the herbe given in wine presently taketh away the paines of the collicke".

The self-heal (*Prunella laciniata*) was called by Parkinson "selfe-heale with jagged leaves". This plant was obviously essen-

tial in "do-it-yourself" medicine of those days, for "He needeth neither physition nor chirurgeon that hath selfe-heale and sanicle (another garden plant) with him".

In the Queen's Garden there are also plants with beautiful flowers, but there are few uses recorded for these. *Hypericum calycinum*—"Rose of Sharon", *Dianthus deltoides*—"Maiden Pink", *Iberis semperflorens*—"Candytufts" and two kinds of buttercup, *Ranunculus aconitifolius pleniflorus*—"Faire Maides of France", and *R. repens pleniflorus*—"Double Yellow Field Crowfoot" are there, and the last of these, according to Parkinson, was "hung in linen cloth about the necks of lunatics at the waining periods of the moon".

At the foot of the bank is a stone flagged path edged on the bank side with dwarf box. This path borders the two sections of sunken garden which is bounded by a low evergreen hedge of *Teucrium chamaedrys*, the germander. In these two sections is a collection of old roses, both species and varieties, of which some of the latter originated two thousand years ago. Interplanted amongst the roses are all kinds of plants in no particular order. Flowering plants include *Hesperis matronalis*—"Queens Gilloflowers", *Catananche caerulea*—"Cupids Darts", and several kind of mullein (including *Verbascum blattaria*—the "Moth Mullein"). Vegetables are represented by the chicory, fruits by the wild strawberry, and culinary herbs by rue and chives. During the spring the display is supplemented by bulbs such as the "Crown Imperial" (*Fritillaria imperialis*), and in summer by annuals such as *Calendula officinalis*—"Pot Marigold" of which the flowers, either fresh or dried, were used in possets, broth and drinks and were, according to Parkinson, "a comforter of the heart".

Trees were not considered important as garden plants when the seventeenth century opened. They were mostly used for timber, and those on the estates were mainly British species. The shrubs most valued were evergreens, for in a country where deciduous trees and shrubs predominate "greenes" were highly prized. As the century continued, however, fashions changed and more exotic trees and shrubs were introduced. This change was influenced by the publication of Evelyn's book *Sylva* published in 1664.

In the Queen's Garden there is a section devoted to shrubs and trees adjacent to the sunken garden, but the limited space does not allow for many trees. *Liriodendron tulipifera* the "Tulip tree" is there, however, and it seems that the first specimen to flower in England did so in about 1675 in the garden of Lord Mordaunt. Most of the shrubs are native either to the Mediterranean region or to this country. Many of those from the former area are tender, and one wonders if they were any less so three hundred years ago than they are today, and if the weather pattern has really changed as much as is sometimes assumed. Some of these shrubs are definitely recorded as tender and were housed

during the winter, but this care is not recorded for all the plants to which we give winter protection today. There are, for example, several species of *Cistus*—"Rock rose" and some of *Coronilla*, as well as *Arbutus andrachne*—"Strawberry Bay", *Syringa persica*—"Persian Lilac", and *Myrtus communis*—"Myrtle". *Cornus mas* has been introduced from the orchard, where it was grown in the seventeenth century for its fruits which were used in conserves. Perhaps the climate has changed, for this last subject rarely sets fruit now.

The formal garden is bounded by yew hedges which will, in time, completely enclose it. The beds of the parterre are set in cobbles with each bed bordered with dwarf box, not intended simply to form an edging, but also to provide a band of coloured foliage. Some of the beds are planted with *Santolina neapolitana*—"Lavender Cotton", of which the grey/white foliage contrasts with the bronze/green of the box, and continues the theme of coloured foliage. Both are clipped to keep them low and to form hard lines.

The other permanently planted bed contains auriculas (*Primula auricula*) which were called "Beares Eares", and were extremely popular. Sir Thomas Hanmer records in his book "It (the auricula) is very sweet, very various, very hardy, easily encrease, and soone at perfection, of a fine forme and beautifull colours, and agree admirably with ye climate, soe that it may seem for all these good qualities not inferior to any flower this Countrey can produce . . . The sorts of this flower are not to bee numbered nor the colours of all of them bee fittly named or described". Other permanent planting is restricted to narcissus planted at the base of the yew hedges. These are *Narcissus X odorus*—"Campenelles" and *N. poeticus*—"Pheasants eye".

The plants in the remaining beds are changed twice a year to provide a spring and a summer display. In the spring the tulip takes pride of place. It was introduced to England about 1575 and in just over thirty years it had become immensely popular, and very many forms and colours had appeared. The most popular were those with broken flower colours which both English and Dutch painters of the period were fond of depicting, and which are now called "Rembrandts". One variety from this group is still available commercially, and this is "Zomerschoon", introduced in 1620. Rembrandt tulips form the main display in the Garden, but there are also parrot tulips which failed to achieve the same popularity because at that time they had weak stems which allowed the flowers to droop. Other bulbous subjects used at this time are the double daffodil "Van Seion", Crown Imperials, Asiatic Ranunculus and Anemones. The last were popular and there were several kinds derived from *Anemone pavonina*, and also forms of *A. hortensis* and *A. coronaria*.

At that time a mass effect was not attempted, and instead planting was well spaced with many varieties to a bed. Under-

planting was practised, but not recommended. At Kew, such subjects as "London Pride" (then called "Princes Feather"), *Ajuga genevensis* and *A. reptans*, wallflowers, broomrape stocks, pansies, and the many forms of *Bellis perennis*—the daisies—are used for this purpose.

When the bulbs have finished flowering, they are removed and summer flowering plants take their place; but bedding as we know it today was not practised in the seventeenth century. Associating plants that were grown then is quite fascinating but it is by no means easy to find plants known in that period which have a long summer flowering season. Amongst those used are *Canna indica*—"Indian Reede", *Trachelium caeruleum*, *Lantana camara*, *Kochia scoparia*—"Belvedere", *Scabiosa atropurpurea*—"Mournful Widow", *Asclepias curassavica*—"Blood Flower", *Mirabilis jalapa*—"Marvel of Peru", *Delphinium consolida*—"Larkesheels", and *Senecio cineraria*. The month of May is the most colourful time in the Queen's Garden, with the tulips and the Laburnum Arch in flower, and although there is never a mass effect or colourful display, there is always something of interest.

Here is a style of garden from a bygone age, different from anything we see today, but from it we can recognise the influence this style had on the horticultural design of the next three centuries.



Her Majesty the Queen, accompanied by the Director, toured the seventeenth century-style garden now known as the Queen's Garden.

THE OPENING OF THE QUEEN'S GARDEN BY HER MAJESTY THE QUEEN

B. Halliwell

There was nervous tension in the Queen's Gardens amongst the people assembled there. Almost all had played some part in the construction of the garden and were awaiting presentation to the Queen. As the cheers of the crowd at the front of the Palace were heard these people hastily lined up at the foot of the steps leading from the Palace to the garden almost as the Queen with Sir George Taylor came on to the loggia.

After the presentations,* during which the Queen exchanged a few words with each person, Sir George Taylor invited the Queen to inspect the garden. Following were Lady Margaret Hay, lady-in-waiting, with Mr. B. Halliwell, then Mr. Cledwyn Hughes, Minister of Agriculture, Lieutenant John Slater, R.N., Queen's Equerry, and Sir Michael Adeane, Queen's Secretary, with Mrs. Cledwyn Hughes and Miss Wheeler.

The party entered the pleached laburnum walk where the early flowers produced a golden haze on the roof of this tunnel giving an indication of the beauty to come. Down the steps into the sunken garden with a pause whilst the Director pointed out the chamomile seat and the Queen read the label with its quotation from Lawson's *New Orchard and Garden* published in 1626 "chamomile seats are both comfortable and seemly". Other labels were pointed out to the Queen and she seemed to derive amusement from some of the quotations taken from old gardening books which appeared on the labels. After leaving the sunken garden the Queen paused whilst the Director introduced Miss Anne Claring-bowl and Mrs. Betty Hills, two members of the staff of the Decorative Department who had worked in the garden. The Queen asked Mrs. Hills if she did not find the work in the garden rough for a woman? Mrs. Hills replied that the rough came along with the smooth. Before the Queen continued her progress she said to Mrs. Hills that here was a very beautiful garden of which she must be very proud.

* The following were presented: Mrs. Fane, daughter of Stanley Smith, a generous benefactor to Kew, whose donations had made possible a large part of the garden. Mrs. Andrew Taylor, Mr. R. Shaw, the Curator, and Mrs. Shaw, Mr. P. Holland, architect from the Ministry of Public Building and Works, who had been concerned in the design of the garden; and Mrs. Holland. Mr. L. S. Grundy, director of Messrs. Grundy & Arnott, whose firm had designed and manufactured all the wrought iron work within the garden, and Mrs. Grundy. Mr. J. Murphy, the metal worker who had been responsible for the actual iron work. Mr. C. J. S. Simms, director of Messrs. Simms & Co., building contractors, whose firm had been responsible for alterations to the Palace and the building of the gazebo; and Mrs. Simms. Mr. B. Halliwell, assistant curator at present in charge of the garden. Mr. G. J. E. Yates, a former assistant curator who greatly assisted in the design and layout of the garden and who was in charge of the garden in its early stages of development, and Mrs. Yates.

Descending the steps from the raised walk many of the Herbarium staff could be observed behind the screened hedge peering through for a closer look or trying to take that extra special photograph.

Skirting the pond the Royal party entered the hornbeam alley pausing whilst Sir George pointed out the beautiful wrought iron rotunda treillage which crowns the Mount. Continuing along the alley the Queen came back to the Palace and prepared to leave for a quick tour of the Gardens before taking tea informally in the Orangery.

