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PAST AND PRESENT

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ROYAL BOTANIC GARDENS

KEW

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(A new feature we are anxious to build on.)

OPPORTUNITIES FOR STUDYING ABROAD

Have you thought of studying or travelling abroad to see how your job is done in other countries? The answer is probably, YES!, but you ask—"How can it be done?" The Kew Guild Committee has been considering this point and in fact set up a Sub-Committee to explore ways and means.

First, it does not include present-day Students who can have this arranged more or less officially and each year several go to other Botanical Gardens and Institutes for three weeks. Many Kewites in a year or two after leaving Kew and starting on a career, realise that a few weeks or months in another country would be of inestimable benefit in the job of their choice. Then there is the older Kewite in a responsible position, who feels a refresher course would be of great assistance as he feels he is getting in a rut.

Well, the Kew Guild Committee had this and other ideas in mind when they set up the Sub-Committee, but the essential factor must be the information fed to it by Kewites both Home and Overseas, so please think about it and write in—the address is below. The type of information which would be welcomed is as follows:—

- (i) Kewites who would be willing to assist with accommodation.
- (ii) Kewites who could offer a short-term job, i.e. 1 to 3 months.
- (iii) Information regarding the possibilities of participation in schemes already in operation (see below).
- (iv) Schemes of exchange for short or long periods.
- (v) Ideas for short tours of botanical or horticultural interest.
- (vi) Comments and suggestions are invited.
- (vii) The information collected will be available to all Kewites.

Please write to the Secretary of the Sub-Committee as follows:—
Mr. C. R. Stock, 14 The Mead, Beckenham, Kent, BR3 2PE,
England.

In connection with (iii) above, a Kewite who left in 1966 was able to spend two months in 1970 in U.S.A. and Canada, under a scheme sponsored by Rotary International and in 1971 the Winston Churchill Memorial Trust offered a Travel Fellowship in Garden Centres and Horticulture in which at least one Kewite was interested.

* * *

STOP PRESS

Richard Ward (1961-63), Kew Guild Committee Member, is getting married in July and going to live in Denmark for a year. In July, 1973, he is planning a 1½-year tour to India and Africa. This tour will take in visits to Old Kewites and parks and places of horticultural interest. He invites Kewites to contact him with a view to meeting abroad, and hopes to write an account of his experiences on his return late in 1974. His address is: c/o 254A, Kew Road, Richmond, Surrey.

FRANK HERBERT EUL

President, 1971/72

Mr. Eul began his horticultural career by spending two years as a pupil with Major H. E. Ryder of the Manor Farm and Nurseries, Stratford-on-Avon, and a further year with H. B. Tindall, of the Horticultural Depot, Coventry. (Mr. Tindall was at Kew 1911-1913). It was then decided that he should have further training in estate management under well-known head gardeners in private estates, and he was, in turn, at Brougham Gardens, Penrith, under J. H. Lane, head gardener to Lord Brougham and Vaux; Coldicote Gardens, Stratford-on-Avon, under W. Wells, head gardener to Viscount Portman; and at Dropmore Gardens, Burnham, Bucks, under F. Reid, head gardener to J. B. Fortescue.

In May, 1932, Mr. Eul entered the Royal Botanic Gardens, Kew, as a student gardener and served for three years in the Tropical and Decorative Departments and the Arboretum Nursery, leaving in February, 1935, to take up the appointment of general assistant to A. Blackburn, Parks Superintendent of Blackpool. (Mr. Blackburn was President of the Kew Guild in 1945). Here he was given a thorough training in the various undertakings connected with a prosperous parks department and its administration, and this experience, together with that obtained at Kew, he has found highly beneficial both in his practical work and in gaining the National Diploma of Horticulture and the Diploma of the Institute of Park Administration. For two years he taught classes in general and commercial horticulture, general botany and rural science at the Blackpool Technical College.

In October, 1938, at the age of 29, Mr. Eul was appointed Parks and Cemetery Superintendent to the Borough of Nelson. Before his appointment, the park, bowling greens and cemetery at Nelson were under separate control, and his first duties were to reorganize and amalgamate these sections into a Parks and Cemetery Department. At Nelson he also taught horticulture and general botany at the Nelson Technical College.

Mr. Eul took up the position of Superintendent of Parks and Open Spaces at Bexley on May 29th, 1944, and since that time has been responsible not only for the restoration of all the Parks and Open Spaces after the second World War, but for the design and layout of Hall Place Gardens, Stevens Park, Steeple Avenue Memorial Gardens, alterations at Russell Park and The Green, Welling, together with the design and layout of new school playing fields and the maintenance of all existing school playing fields.

During the last six years as Director of Parks, Recreation and Cemeteries for the new London Borough of Bexley (population 215,000) Mr. Eul has had the valuable experience of forming a new Parks, Recreation and Cemeteries department, and within this specialist sphere, has

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FRANK HERBERT EUL,
President, 1971/72

H. G. BUTCHER
Vice-President 1971-73

Henry George Butcher, now in his 72nd year, was born at Maidenhead, Berkshire. With a horticultural background of three generations, he decided in 1913 to embark on a career in this profession and started his training in large private estates in the Wokingham area. During the First World War he joined the R.N.V.R., and as a wireless telegraphist served in minesweeper trawlers off the East Coast and in the Eastern Mediterranean, where he was based on the Greek islands of Milos and Lemnos. On the latter island he collected from the native flora and later when at Kew, these were identified and entered into the Herbarium by the late Dr. Turrell.

H. G. Butcher entered Kew as a student after demobilisation in September, 1919. He was assigned to the tropical department under Mr. W. Taylor, commencing in the Palm House but later transferring to the T-Range. Leaving Kew in 1921, his first appointment was in the Botanical Gardens, Regent's Park. After a period of one year he joined the Cardiff City Parks Department, where at Roath Park he eventually became general foreman. In 1930 his next move was to Gunnersbury Park as deputy superintendent. A few years previously this had been a private estate owned by the Rothschild Family and considerable alterations were made, mainly in the provision of sports facilities.

The appointment as the first Superintendent of Parks in the newly constituted Borough of Epsom and Ewell followed. This authority developed rapidly, and the demand for recreational facilities and public layouts increased, especially after the Second World War. During the war H. G. Butcher had increased responsibility, with allotment societies and in the Civil Defence Report Centre.

Joining the Institute of Parks and Recreation Grounds Administration in 1931, he was elected Vice-President for the year 1961-62, when the last London Conference of the Administration was held. Since his retirement from the Corporation seven years ago, he has been President of the Ewell Horticultural Society.

For many years our Vice-President has been on the Committee of the United Horticultural Benevolent and Provident Society and is a present Trustee. This Society aims to provide financial assistance to all members of the horticultural profession during illness. Our Vice-President's main relaxation in retirement is bowls, a game which he strongly recommends.

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been directly responsible to the Council for the implementation of policy, planning, organisation and administration for the new Borough, combining the Parks Departments and the Kent Education Committee school playing fields of the former Borough Councils of Bexley and Erith, and the Urban District Councils of Crayford and Chislehurst/Sidcup (part). 1,256 acres of Parks and Open Spaces and 900 acres of school playing fields are under his direct control.

During Mr. Eul's period of 27 years at Bexley many former students of Kew, Wisley and Edinburgh have had the opportunity, in his Department to gain further experience and assist in the development of a Parks and Recreation service; progressing to positions of related responsibility in many parts of the country.

Mr. Eul was first elected to the Council of the Institute of Park Administration as a member of the London branch in 1944. He then became secretary of the south-eastern branch and has remained on the council since that date. He has served on all of its committees, was chairman of the membership committee and vice-chairman of the examinations board. He represents the Institute on the council of the National Playing Fields Association and the executive committee, and is also on the council of the Central Council of Physical Recreation. He is a member of the landscape work-terminology committee and the playgrounds committee of the British Standards Institution and is also on the executive council of the Kent County Playing Fields Association. In 1963 he was unanimously elected president of the Institute of Park Administration for the year 1964.

Referring to the Kew Guild itself, Mr. Eul has served on the Committee for three terms of four years—1945/48, 1957/61 and 1962/66.

Our President's main hobby is photography and he, together with Mrs. Eul, has visited most of the Gardens in Great Britain and Northern Ireland. They have amassed a considerable collection of colourful slides and travel extensively giving illustrated lectures on "The Gardens of England", "20th Century Garden Design" and the "Work of a Parks Department".

ANNUAL DINNER, 1971

The Annual Dinner was held on Tuesday, 25th May, at the Imperial College Refectory. The President, Dr. P. G. Greenway, was unable to be present. After the Toast to Her Majesty The Queen, Mr. Milne-Redhead proposed the Toast to Our President in *Absentia*. The response was made by Mr. W. Howell, Vice-President, with a message from the President (see next page). Mr. Howell proposed the toast to The Kew Guild after a lively and amusing speech. The toast to the Guests was made by Mr. M. Wilkinson (Student), and the response was made by Mr. J. St. Bodfan Gruffydd, the Principal Guest.

All were agreed that the evening was a great success, the food was very good and the speeches short and amusing, leaving plenty of time for the get-together afterwards.

A MESSAGE FROM THE PRESIDENT IN NAIROBI, KENYA

(Read at the Annual Dinner, 1971)

Ladies and Gentlemen. Your Executive Committee, in spite of my protests, have done me the great honour to elect me President of the Kew Guild for the year 1970-71. At the time my election was being discussed, I protested strongly, because I considered a President of the Guild should be a person resident in the United Kingdom and not an absentee living in what used to be darkest Africa. As I am temporarily employed as a part-time worker, I am not entitled to any leave at all and regrettably I cannot even attend this dinner. My last leave in the U.K. was in April, 1958, my retirement leave, and not unexpectedly it rained as it always did during my home leaves. It rained from the time of my arrival till after my return in August to Kenya.

I entered Kew in September, 1919, from Wisley, after War Service in France and Italy. Sir David Prain was the Director and A. W. Hill, the Assistant Director. W. Watson was the Curator and J. Bean, the Assistant. My duties as a student gardener were under William Taylor who was the foreman of the Tropical Department, and I worked in the Palm House and the Water-lily House. I also worked in the Tropical Propagation Pits, the Fern and Aroid Houses. To me the most interesting were the Propagating Pits, I had been doing similar work at Wisley with temperate climate plants at the time that Institution was receiving collections of seeds from collectors such as Wilson, Farrer and Kingdon-Ward.

After about 18 months in the Gardens, I was asked if I would like to work in the Herbarium. As I was interested in the botany of African plants I said I would. At first I worked under Dr. Otto Stapf, the Keeper of the Herbarium and Library, then for a time under Dr. T. A. Sprague, naming a very large collection of plants from South America. In these I was not interested at all. Then my wish came true. I was put to work in the African section under John Hutchinson, now Dr. J. Hutchinson, F.R.S., who taught me the great diversity of the flora of Africa as I was given the task of naming collections of plants from West and East Africa, as well as from South-West Africa, including the spare-time job of naming collections of South African plants received at Kew from institutions in Southern Africa as well.

In 1924 I left Kew to join Dr. Burt Davy in the Imperial Forestry Institute, Oxford. He was the lecturer there on Tropical Forest Botany. Whilst on a visit to Kew from the Institute naming tree specimens, I was asked by the then Associate Director of Kew, Major T. F. Chipp, if I would like the job of Botanist in Charge of the E.A. Agricultural Research Station, Amani, Tanganyika Territory. It was through the good offices of Major Chipp that I was appointed to the post which I filled from March, 1928, until my retirement in 1958. I must say I have been very lucky in my work as it has been an absorbing hobby and not work. I have travelled extensively throughout eastern Africa, from

the Sudan border to the borders of Port. East Africa, and there are still many places in eastern Africa which I would like to visit and collect in.

As Nigel Hepper has told me to keep it short since the Committee wants the Guild diners to get together, I will close by wishing you all a very jolly evening and every success for the future in your work, and may the Kew Guild long continue.

7th May, 1971.

P. J. GREENWAY, *President, Kew Guild.*

ANNUAL GENERAL MEETING OF THE KEW GUILD, 1971

A brilliant day greeted a record attendance of the A.G.M., on Saturday, 18th September, in the Lecture Theatre, Kew. The Vice-President, Mr. W. Howell, deputising for Dr. P. J. Greenway, took the chair, with the Hon. Treasurer, Mr. J. B. Simmons, the Hon. Secretary, Mr. F. N. Hepper and 53 members present.

Mr. Howell welcomed Kewites present and called upon them to stand while the names of those members who had died since the last A.G.M., were read: W. A. Bromley (1927), W. Corbett (1925), E. Feltham (1909), W. Newell (1907), T. A. Summerfield (1902), H. E. Wiseman (1932), F. G. Harcourt (1920), G. Atkinson (1959), F. L. Simmons (1937), G. Bates, G. Grant (1920), and L. P. Scott (1922). The minutes of the 1970 meeting were adopted.

Mr. Simmons, in presenting the *accounts*, said that his duties as Deputy Curator left him very little time and he had been forced to relinquish his post as Treasurer. Although the finances were sound at present, he felt the Committee should consider raising the subscription next year to cover rising prices which would have increased even further by then. Looking back over his tenure of office, he observed that when he took over, there were numerous separate accounts and it was not possible to get a clear position of the financial position. By rationalizing the accounts and re-investing with the Charities Commission he estimated that there was an additional £2,000 to our credit. Mr. Storey gave a spontaneous vote of thanks to Mr. Simmons for his strenuous efforts over the years and everyone applauded.

Membership showed a net increase of about 30 members owing to recruitment from circulars sent out by the Secretary to all unpaid-up Kewites listed in the *Journal*. The membership is now just over 730.

Journal. In the absence of the Editor, Mr. G. E. Brown, his report was read. The later publication of the *Journal* was due to the inclusion of the ten-year index which could not be completed until the page proofs were available. To allow for the inclusion of this ten-page index the main content was reduced a little. In view of the size of this volume—1,209 pages—it has been decided to complete a volume every five years to facilitate binding. Editorial work on the next issue will be shared with Mr. John Warrington, who is keen to assist.

Photographs. 37 were added to the collection during the year.

Dinner. Many complimentary comments had been received about the new venue at the Imperial College, South Kensington. The food and

service were a great improvement and the spaciousness was appreciated. A fuller report appears on page 8.

Students' Prize Day. Mr. Coward, as Vice-President, had represented the Guild the previous day. He reported on the excellent occasion and on the stimulating speech delivered by the new Director who also presented the prizes.

Retiring Members of Committee were as follows: J. K. Burras, T. R. Risely, S. W. Rawlings, D. V. Moore, and J. Keesing as Auditor. Mr. C. R. Stock and Mr. W. Howell also completed their term as Past-President and Vice-President respectively.

Election of Officers, Members of Committee and Auditor. Those elected are recorded on the inside of the title page of this issue. It is interesting to note that seven nominations were received for four vacancies on the Committee, which involved a ballot. Two members even voted by post and on putting it to the meeting as to whether they were acceptable, the postal votes were allowed.

Proposed Kew Guild Housing Association. This important item attracted a great deal of attention and discussion after the Secretary's opening remarks. Mr. Hepper set out the need for accommodation for students, the difficulty in obtaining suitable bed-sitters for newcomers and especially for overseas students who now have no time to settle in before lectures commence. No moves have come from the Ministry to provide accommodation in the Kew region where the large houses are rapidly being demolished to be replaced by flats which are unsuitable for students. The Secretary stressed the problems attending the possible purchase of a house and the need to have a full-time warden, as well as somebody who could act as secretary and general factotum while negotiations took place. Having discussed the matter with the Director and in Committee, it was now time to get the approval of the Guild membership. The Guild's status as a charity must be safeguarded and any Housing Association would have to be a separate body. The following resolutions were passed:—

- i. That this A.G.M. empowers the Committee to explore further the practical, legal and financial implications of the formation of a Kew Guild Housing Association (or Society) financially and constitutionally independent of the Kew Guild for the purchase of a house or provision of equivalent accommodation for the sole purpose of accommodating student gardeners.
- ii. The meeting agrees to the formation of a Kew Guild Housing Association (or Society) if the Committee regards it as a feasible proposition.
- iii. That this meeting agrees to the interest free loan of a sum not exceeding £100 (One hundred pounds) for the purpose of launching such an Association.

Any Other Business. The question of Life Subscriptions was raised at the request of Mr. Colin Hart in Australia. After discussion the meeting agreed that it had the power under Rule 8 to keep life subscriptions in abeyance.

At 4.10 p.m. the Chairman closed the meeting and some 90 members and friends took tea in the new Services Block at the Lower Nursery and they were interested to see the fine developments there.

F. NIGEL HEPPER, *Hon. Secretary.*

STUDENTS' ACCOMMODATION

Those members who read the *Newsletter* in August, and especially those who attended the A.G.M. in September, will know all about the Guild's concern for suitable student gardener accommodation. Briefly, the situation is such that the incoming students are quite desperate for somewhere to live locally, and at a rent they can afford. This is by no means a new problem, but it has reached a critical stage and, failing official success students appealed to the Guild for help. The possibility of forming a housing association for the purchase of a home to satisfy part of the need was deeply considered by the Committee and agreed at the A.G.M., not without considerable reservation, owing to the practical responsibility involved.

However, all this was going ahead at the time of the arrival of the new Director, who immediately took great interest in the matter. Towards the end of 1971 events moved very rapidly! Although I should not say too much at this stage, suffice it to be known that things are moving at the highest official level, and the Guild has of course, marked time on its own plans pending the outcome. It is with much relief, therefore, that we can report real progress and I am sure members will agree that this was not really a Guild function, but one into which we felt we should step to meet a need. Let us hope official plans do materialise.

F. NIGEL HEPPER.

THE NEWLY FORMED KEW CLUB

On 3rd November a General Meeting of Staff was held in the Jodrell Lecture Theatre with a large attendance of staff from all sections of the Gardens, and it was agreed to establish a social club open to all members of the staff at Kew, and also to long-term visitors, and that it should be called the Kew Club. A draft Constitution was produced for this Meeting and this formed the basis of the subsequently adopted Constitution. A Committee of 14 was formed and first met on 10th November. The initial work of the Committee was to establish the rules for the running of the Club, whose introduction to the Staff as a whole was by a Wine and Cheese Party on 1st December. This resulted in an initial recruitment of over 80 members and was followed by a major social event for staff, the first of its kind ever held at Kew, in the Orangery when a Christmas Party was held on 22nd December, when over 300 members of staff and their friends came to enjoy an evening's entertainment of dancing, singing, eating and drinking! At the same time regular meetings of the Club were established on Wednesdays from 12 until 2 in the foyer of the Wood Museum, when members of the Catering

Sub-Committee provided food and drink. These meetings provide an excellent opportunity for members to meet one another, to bring guests and to have drinks and modest refreshments, in a relaxed informal setting.

Future activities include the possibilities of establishing a Film Society, and holding a mid-summer event, a barbecue. The Club already has shown its great potential in providing a focus for all sections of the Gardens to meet in an informal manner, and has been greatly welcomed by all.

L. PEMBERTON, *Secretary.*

STUDENTS' UNION

Twelve months ago we welcomed the introduction of block release study. Everyone's hope was that this system would be a great improvement on that which existed before, and although it is still early days, most students and Gardens staff feel they are reaping the rewards of this forward thinking. Professor Heslop-Harrison intimated in his speech at prize-giving that more changes in the Students' course might occur. The social activities of the Union may be taken to reflect fairly accurately the unity we enjoy at this time. The present 2nd year students have contributed a great deal to this, and I sincerely hope that the new intake of students (1971) will be as active. A summer fête was held on Kew Green for the first time, and I am happy to report that £60 was raised for the Gardeners' Royal Benevolent Fund. We hope to repeat this success in 1972.

This year has seen a number of students striving for success in external examinations notably the N.D.H. (Intermediate) and the Certificate in Arboriculture. David Stokes and Andrew Patterson are to be congratulated for their success in the former, and Alan Lovatt the latter, and the many students who were successful in the Certificate in Arboriculture.

Our sincere thanks are due to Geoffrey Cole (our former General Secretary) and to all the past and present members of the Union whose help has achieved so much.

ROBIN BLETSOE, *President of the Union, 1971/72.*

Treasurer's Report. Tony Harvey retired as the Union's Treasurer in July, 1971, and on behalf of the Members I would like to thank him for all the good work he has done for us. The year started off well, both accounts showing satisfactory balances. The main contributory factor was the summer fête, and our thanks are extended to all who helped, and particularly to Malcolm Leppard, who worked so well. Our future appears promising, given the same enthusiastic help.

JOHN COX, *Treasurer.*

Domestic Information Secretary's Report. This post was created to assist students and to advise them upon the choice of doctors, dentists, banking facilities and most important of all, upon accommodation. During the summer the accommodation list has been revised, but un-

fortunately reduced considerably. In the light of this worsening position I would like to offer the gratitude of the student body to the Guild, for the efforts to provide a suitable hostel for the first-year students.

R. HUGHES, *Secretary*.

SOCIETIES AND CLUBS

Mutual Improvement Society. The society has continued to maintain its status, being responsible for the important evening lecture series held at Kew during winter months, and the meetings have increased in popularity during the session. The Kew-Wisley Debate and Beer Drinking contest was a great success, and we are pleased to report that we won the latter in fine style. The future of the Debate seems to be good for at least another year before the Wisley course is terminated. The social evening held by the Society was a success but the attendance at the Ad-Lib competition was so poor that it was necessary to hold it again later.

Finally I would like to thank both the Staff and the Students for their support with special reference to the committee members who through their efforts and determination made the season a success.

T. N. SAVAGE, *Secretary*.

Table Tennis. One of the main events during March was the Inter-Departmental Tournament. It was very successful and attracted nearly eighty entries from all parts of the Gardens. Owing to the large numbers of participants, it was necessary to decide the first two rounds on one set only. The remaining rounds were decided on the last of three sets. The field was eventually narrowed down to four finalists, and the games between these were decided on a points system. The results were—1st C. B. Bamkole—Tropical Department, B. L. Stannard—Alpine Department, A. Bray—Tropical Department, and J. M. Reed—Tropical Department. Mr. L. King presented the cup and medals.

Further interest was provided during the evening of the finals by a series of exhibition matches between Mr. L. King and Mr. R. Shaw, Mrs. J. Carter and Mr. C. Erskine, and Mr. J. Harris and Mr. B. R. Phillips.

Our thanks are due to Mr. C. Bamkole, the retiring Secretary, whose industry and organisation contributed greatly to the success of the whole competition.

B. STANNARD, *Secretary*.

The First Kew Fête. A Fête in aid of the Kew Students and the Gardeners' Royal Benevolent Society was held on Kew Green on 3rd July, 1971, Elvi Hale performed the opening ceremony at 2.30 p.m. in exceptionally fine summer weather. Milling crowds enjoyed the event as they bought and bartered for bargain books and bric-a-brac. A general hubbub, as coconuts toppled, cans fell and balloons popped, competed with popular tunes played by the "Steadfast Silver Band". Exhausted patrons sought refreshment in the tea tent. To finalise the afternoon,

at 5 p.m., Mr. Pemberton drew the winning number in the Grand Draw. The results were—1st, Miss Jenny Law, T-Range (£15); 2nd, Mr. Etherington, Farnham (£10); and Mr. C. Rudd, Wood Green (£5).

I would like to take this opportunity to thank all members of staff, students and local traders for their help in making the afternoon so successful. My special thanks go to Miss Colson, Messrs. King, A. Titchmarsh and M. J. Whitehead. They made up a most able committee. A total of £285 was taken of which £120 was profit. Half of this was donated to the Gardeners' Benevolent Society. We hope these events will be held annually.

MALCOLM LEPPARD, *Chairman of the Fête Committee.*

Social Section. The social life at Kew continues to flourish, due in no small measure to the efforts of Alan Wilton. The highlights of the year began with the annual Wine and Cheese Party for the First-year intake. This was followed by the Christmas dance and revue organised by the Drama Group. The dance, which followed the Kew-Wisley Race organised by Wisley, was held at St. Georges Hall, Esher. The occasion was dominated by the superb dancing of the Kew Students to "Technicolour Dream", supported by a disco show. In September we held a revue, "The Third Year Thing", and although it was the first of its kind it proved to be very popular. The performers were the Pseudo-Nippon band of minstrels led by Alan Titchmarsh and supported by the "Incredibly Strange" disco. It was enjoyed by all present, including the parents of the third-year students.

With organised visits to the theatre, ballet and pop concerts the formation of a First-year Birthday Club and a week's trip on the river navigating the upper reaches of the Thames, this was a year to be remembered.

We thank all concerned for a very successful year.

A. G. MUGFORD, *Secretary.*

Hockey Club. We met with a fair measure of success during the season, especially when it is considered that many of our players were sampling the pleasures (or pains) of hockey for the first time. The only defeat was against Gypsy Hill College, the score being four goals to nil. In this match we fought well against several experienced players, including, it was rumoured, one of county standard.

A highlight of the season, for the male members of the team at least, was the match against an all female side from Maria Grey College, which we won by one goal to nil. The other matches were either drawn or won by similarly close margins. What we lacked in skill we made up for in enthusiasm, and we hope for as much success and enjoyment this year.

BRIAN STANNARD, *Secretary.*

Tennis Club. This was a good year for playing tennis, the weather was reasonable and the courts were seldom unplayable for more than

a few days at a time. Maintenance of the courts has been taken over by Mr. Sadler's department and an excellent job has been made of it. I think the grass is in better condition now than it has ever been. In preparation for the development of a woodland garden, adjoining the 17th Century garden, a screening hedge of *X Cupressocyparis leylandii* has been planted along the river boundary of the courts. Although only a couple of feet high at the present time, when mature, this dark green screen may improve visibility on the courts.

Improvements to the Club's facilities have not been entirely left to the Gardens department. This year we bought a new cross net and 60 yards of surround netting. By purchasing one or two large items of equipment each year the financial load is spread out and will prevent a sudden heavy expenditure from the Club's funds in the future.

There was no tournament for the Nathismus Cup or the Proudlock Cup. A new cup however has been presented by Mr. N. Dempsey. This is called the Dempsey Cup and is for a tournament between Kew and "The Charlie Butler" at Mortlake, of which Mr. Dempsey is the landlord. For this cup three matches were played in all of which Kew was only narrowly beaten. One match was played and won against a team from Queen Elizabeth College.

S. A. RENVOIZE, *Secretary/Treasurer.*

Cricket Club. It was not an outstanding season. Two matches were played, one won and one lost. As with many other similar institutions, great difficulty is experienced in gathering eleven capable men together for one match, let alone for a dozen or more. Studies, athletics and many other activities, not the least of which are holidays, have a bearing on the problem.

The people that did play, acquitted themselves with honour and enthusiasm far exceeded skill in most cases. We hope that the 1972 season produces more players and fixtures.

JOHN ROTHERHAM, *Secretary.*

Music Circle. The emphasis has been on getting out to see live shows to hear the best of live music. The circle now embodies a theatre group which has fortnightly outings to the Richmond Theatre. Our monthly record evenings still prove very successful.

We have a varied and entertaining programme of events which, we hope, will enjoy the continuing support of the Kew staff and students and my thanks are extended to all concerned for their help and enthusiasm. Special thanks are due to Dilys Gaskin who runs the theatre group so successfully.

ALAN WILTON, *Secretary.*

Football Section. The season, 1970/71, was a most favourable one indeed. Out of the twelve matches played, nine were won, two lost and one drawn. We had 50 goals for and 18 against. Our best game of the season was when we trounced Wisley 5-0, the whole team playing exceptionally well. So far this season we have played three games, of

which we have lost two and won one. Also to date we have arranged thirteen definite matches with the hope of obtaining twenty fixtures for the season. We now have a match secretary (D. Nixon), while I act as team captain.

I. MANDERS, *Secretary*.

ATHLETICS REPORT

Kew-Wisley Race (13th March, 1971)

The race, started this year from Kew by Mr. J. P. Brenan, the Deputy Director, was the 21st to be held. Conditions were rather warm, and not really ideal for a fast time. In the early stages, the lead changed continually, with Wisbech taking the first place at the finishing line, closely followed by the Kew Guild team. Askam Bryan came home third. Wisbech collected the Invitation Cup and team medals; Kew Guild, the Pring Cup, Descanso Shield and medals, and Askam Bryan received the Maori batons and medals. Other teams competing were as follows in order of finishing: Pershore, Hadlow, Windsor, Wisley, Somerset, Kew, The Grotto, Berkshire College, and John Innes Institute. The winning team completed the course in 110 minutes 30 seconds, and the Kew Guild team in 111 minutes 3 seconds. Mr. F. Knight of Wisley presented the prizes at the dance after the race.

Ministry of Agriculture Sports Day (24th June)

Our main successes were achieved in the "novelty" classes this year, although we competed in many of the main events. Both our football teams went through to the semi-finals in spite of the very stiff opposition. Robin Bletsoe came third in the 2-mile walking race and R. G. Holmes came fourth in both the 880 yards and 1 mile races. The events were followed by a Disco-dance which proved to be most enjoyable.

Clog and Apron Race (20th October)

In cool weather, nineteen competitors gathered at the Broad Walk circle, traditionally wearing their clogs and aprons. Mr. Brenan started the runners on their thunderous charge to the Orangery and the assembled spectators. Alan Stuttard arrived home first, travelling at a speed slightly less than that of sound, followed closely by B. Phillips (57 secs.), and R. Iverson (60.2 secs.). The winner's time was 54.2 secs., not a record. The Director presented prizes to the exhausted first arrivals. Several members of the staff complained of deafness.

Round the Gardens Race (27th October)

Ten competitors lined up in a stiff breeze for the start of this year's race, which was started by the Director. Ian Manders and Robin Bletsoe immediately went into the lead, hotly pursued by the rest of the field. The route went through the Queen's Cottage Grounds this year, which accounts for the slightly longer course and time. Ian Manders won in 15 mins. 21 secs., followed by Robin Bletsoe (15 mins. 45 secs.) and R. G. Holmes (15 mins. 57 secs.).

In conclusion I would like to thank all those people who have worked so hard to make this an enjoyable and successful season.

R. G. HOLMES, *Athletics Secretary*.

[Note.—The history of the Kew-Wisley races will be found on pages 53-58.—Ed.]

Photographic Club. The main event of the year was the annual slide competition which drew a total of 146 entries from all sections of the Gardens. An enjoyable evening was spent on February 25th, viewing the slides and listening to the judges' comments. The winners were as follows :—

Class I. (Plant Portraits—students). D. J. Trevan won this class with a slide of *Colchicum speciosum* 'Bornmueller'.

Class II. (Plant Portraits—staff). Won by George Nicholson with a slide of *Paphiopedilum callosum*.

Class III. (General). Won by R. Hughes with a slide entitled "That's better".

The Kew-Wisley-Edinburgh slide competition trophy was won by Kew with a total of 286½ points, with Wisley taking second place. The best overall slide was judged to be "If winter comes" by P. Burton of Kew.

During the year many Students have taken advantage of the facility for buying films through the Photographic Club at a considerable discount. Finally, may I offer my thanks for all those people who have helped to make this year such a success. DAVE TREVAN, *Secretary*.

NOTES AND GLEANINGS

Awards

The Director, Professor J. Heslop-Harrison, received an Honorary D.Sc. of the University of Belfast in July. He held the Chair of Botany at the University from 1954-60. He was also awarded the Gunnar Erdtman International Medal for Palynology in November.

Dr. C. R. Metcalfe (1969) was awarded the Linnean Gold Medal by the Linnean Society of London in recognition of his distinguished work on plant anatomy.

F. J. Hebden (1947) was awarded the M.B.E. in the New Year's Honours List, 1972.

N.D.H. Final : T. R. B. Storr (1970) and R. Wickham (1969), both in General Horticulture, Section 1.

N.D.H. Intermediate : D. Stokes (Student) and A. Patterson (Student).

Diploma of Arboriculture : M. J. Leppard (1971) and A. R. Lovett (1971).

Mr. Peter Taylor has been awarded a Leverhulme Research Fellowship, tenable for the period February to May, 1972, to enable him to study certain *Urticularia* spp. in the field in the S.E. United States.

R. M. Pollhill and G. E. Wickens, members of the Herbarium Staff, have each gained a Ph.D.

Speech Day was held on the 17th September when the Kew Diplomas and prizes were presented by the Director, Professor Heslop-Harrison. Details of the presentations are as follows :—

The 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 : Honours : G. Cole, C. Hallsworth ; Pass : C. Bamkole, R. Chandler, A. Harvey, C. Hilton, M. Leppard, A. Lovett, D. Maguire, W. Parkinson, J. Reed, J. Smith, G. Watts, M. Wilkinson, A. Wilton.

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

The Ernest Thornton-Smith Travelling Scholarship (Value £800)—
M. Leppard.

G. C. Johnson Memorial Prize—C. D. Hallsworth.

Kingdon-Ward Prize—D. T. Maguire.

Landsman Bookshop Prize—D. T. Maguire.

Sir Joseph Hooker Prize—T. N. Savage.

Matilda Smith Memorial Prize—A. Lovett.

C. P. Raffill Prize—M. Leppard.

Dümmer Memorial Prize—A. Harvey.

Proudlock Prize—C. D. Hallsworth.

Prize for the best garden plot—C. B. Bamkole.

Prize for the best individual study—G. Cole.

Mutual Improvement Society's Prize—M. J. Whitehead.

The Metcalfe Cup—A. Titchmarsh.

Photographic Society—D. J. Trevan.

Chris T. Bamkole (1971) wrote in recently from the Ile-Ife Nigeria, where he is in charge of the Parks and Gardens Unit of the University of Ife—"I am head of a newly created department and have the responsibility of building it up. Communications here are so poor that it is quicker to make the journey and enquire personally, than to write. I am my own typist and secretary. My nursery supervisor is very knowledgeable on plants, and under him are two assistant nursery supervisors, trained in agriculture and knowing very little about flowers. The labourers also know very little, and I find that I must organise some form of training as a matter of urgency.

The unit will be responsible for the botanic gardens which will include an arboretum, aquatic garden, beds for teaching purposes, in addition to landscaping on the campus. I do not have to travel far for a solution to my problems, for we have in the University, an Agricultural Engineering Department dealing with machinery. Likewise soil problems, identifications, and pest and disease difficulties can also be dealt with by the appropriate departments.

A. Barber (1965) has been appointed as Deputy Parks Manager to the City of Bristol, after 3½ years as Deputy Director of Middleton Parks and Recreation Department.

Gilbert Briscoe (1961) writes—"I enjoy getting the *Journal* every year—it brings back many memories that I have of the Gardens. Mark Theron (1963) and I are busy with exams.—we are taking a degree in Administration.

Edith Dallimore, daughter of William Dallimore, founder of the Kew Guild, wrote in July—"I go on much as usual here, finding plenty to do and keep me busy, in the cottage and the garden, and joining in with the numerous village activities. We had our Village Gardening Society's Summer Show a week ago. I put in 18 entries including 4 in the domestic classes. I took 7 first, 3 seconds and 2 third prizes, plus the Silver Floribunda Rose Bowl which is held for the year". Congratulations! Miss Dallimore's address is 3 Glenside Cottages, Bidborough, Tunbridge Wells, Kent.

John Douglas (1934) has retired from the post of Parks Superintendent of the Royal Burgh of Renfrew, a post which he held from 1956. To mark the occasion he was presented with a record player while the Council presented a projector. After leaving Kew, John went to Clacton-on-Sea as foreman, eventually becoming superintendent. He was appointed Curator of Glasgow Botanic Gardens in 1947 (E. W. Curtis, former Editor of the *Journal*, took over from J. Douglas in 1956). John has no difficulty in filling time with bowling, golf and music, he writes—"I derive a lot of pleasure from playing the viola in the Glasgow Orchestral Society. During 1971-72 I will be president of the Renfrew Horticultural Society. I am glad to say my wife and I are in good health."

J. E. Elsley (1964). One of the interesting publications which appeared during the year was a booklet entitled—*Some Plant Records from South-east Greenland*. The paper written by J. E. Elsley and G. Halliday, is based on botanical collections made in 1966 and 1967. John visited the region in 1967, when he was a member of an expedition from Newcastle-upon-Tyne University.

John Endall (1966) has a rural studies post in Cambridgeshire at Sawston Village College. Many will remember John and his wife Shirley, who worked in the Herbarium. He writes—"I enjoy life up here where we have just bought a bungalow and are busy decorating. I meet D. S. Harris occasionally, "Taff" to those at Kew. He was on the last of the two-year courses. Living near Bristol he works for Civic Trees, being area representative for the South-West and Wales. Our baby girl is called Melica Jane—a botanical name, remembering that Shirley worked in the grass section at Kew."

W. Everitt (1928). "You might be interested in this story of seed dispersal. When I left Kew for Queenstown, South Africa in December, 1928, the late Mr. J. Coutts, then the Assistant Curator of the Decorative Department, gave me a collection of seeds for experimental purposes—some for parks displays, others of economic interest. Amongst them was a packet of *Gaura lindheimeri*, which immediately made itself at home. The plant grew in almost any soil and position and seeded most profusely. I passed some of the progeny to other Kewites in various parts of S. Africa, and it increased and multiplied spreading to private gardens, the seeds germinating where they fell. It became and still is a very useful hardy border plant. The plant became affectionately known as 'Jock Coutts', the name given to it by Harry Bruins-Lich (1928) in Pretoria. I was recently asked to identify drifts of a white flower growing in profusion in parts of a local race-course—yes, you have guessed it, our old friend, 'Jock Coutts'!" (This plant is a member of Onagraceae from Texas, introduced 1850.)

George Fuller (1953) is Curator of Pukekura Park, New Plymouth Park and Reserves Department, Taranaki, New Zealand. He wrote—"Work in the park has been particularly interesting. One project has been the task of designing and constructing a major water-effect, in the form of a 35-foot-high waterfall, down which about 40,000 gallons of water cascades and tumbles each hour. Though artificial in that the water is recirculated by pump from a large pool at the bottom, every endeavour has been made to make the fall back look natural, and even those who were sceptical on this point during the construction have expressed great satisfaction at the final outcome, so we are very happy over our efforts. It took over a year to complete (not working continuously), and incorporates over 100 tons of river boulders, some weighing several hundred-weights and every one of which had to be manhandled at some stage. It has four 'drops' under each of which is located concealed lighting for night operation and will obviously be a great tourist attraction."

John Gaggini (1963) has left N.A.A.S. and is now with the Northampton Development Corporation.

Peter S. Green became Deputy Keeper of the Herbarium and Library on 16th June, following the retirement of Edgar W. B. H. Milne-Redhead.

Rob. M. Hardie (1954) who was on the staff of Adelaide Botanic Gardens for a number of years has completed his third year at the Adelaide Bible Institute and hopes to obtain a post in Christian Service.—T. R. N. Lothian.

P. A. Harvey, a 3-year-course student 1968-71 took up the appointment of Garden Supervisor in the Decorative Department at Kew on 27th September, 1971.

Frank E. Hazlewood (1939). "Frank was a contemporary of mine at Kew. His family have for many years run a very extensive plant nursery and I think it is his uncle who is still alive. He remained in the family business until 1955, when he moved to one of the agricultural chemical firms. He is now the Senior Product Officer of the Chemicals Division of Union Carbide Australia Limited, 167-187 Kent Street, Sydney, N.S.W. 2000. Immediately following his transfer to the agricultural chemical field, he spent several years carrying out research in the various products and their effects on pests, diseases or plant growth, followed by a stint on marketing. He travels frequently through New South Wales and Queensland, but rarely comes to South Australia."—T. R. N. Lothian.

F. J. Hebden (1947)—"I am now back in the United Kingdom with the Commonwealth War Graves Commission in the Head Office, after 18 years abroad, the last 7 in India from where I covered South-East Asia. I have enjoyed my travels, but I am glad to be in England, with English horticulture again." (Please see Awards.)

Arnold Himson (1948). "After Arnold had completed the Kew Course, he spent 7 years in New Guinea where he held various positions with the Department of Agriculture, officially as Manager of Land Use and Research Stations. He left primarily because the climate was causing health problems to the family. After this, he went to the other extreme and bought an orchard in Tasmania. He worked this for about 6 years and then sold out and took the family for a trip to England. On his return (i.e. about 6 years ago), he took a temporary position as a Fruit Inspector with the Department of Agriculture, and also bought a country Post Office. For three months of every year, he inspects apples and pears for export, making certain they are free of Black Spot, Woolly Aphis, Bitter Pit, at the correct stage of maturity, and a host of other things, so that they can conform to the standards laid down for the export trade. The rest of the year he works at a country Post Office. His address is—Buckland, Tasmania, 7271. He is very happy with this arrangement because it gives him a fair amount of time to collect plants. He has been particularly helpful in this aspect with regard to Lord Talbot de Malahide's *Endemic Flora of Tasmania*. His wife is an ex-Kewite, formerly Miss P. Weston."—T. R. N. Lothian.

Miss S. Hooper was elected President of the Richmond Scientific Society for the year 1971/72.

Bryan F. Howard (1966) is very happily married and is the proud father of a baby son. His work at Salop continues to run smoothly, and consists of giving horticultural advice to various departments of the County Council, as well as to private gardens. Lecturing adds to the variety, with both day and evening classes.

Dr. C. E. Hubbard has written a very full account of the life and works of the late Dr. W. B. Turrill, for the *Biographical Memoirs of*

Fellows of the Royal Society, Volume 17, November, 1971. (Dr. Turrill's obituary with a photograph, appears on pages 203-205 in the 1962 *Kew Guild Journal*. The bibliography lists over 750 works written by Turrill, ranging from accounts and papers for botanical works to important books. In addition to this number he wrote numerous critical book reviews, short notes on botanical subjects, and reports of scientific meetings and exhibitions. The work contains a fine portrait photograph.

Malcolm Hutcheson (1967) wrote in during January—"In September, 1970, I was appointed Head Gardener of the North-West area to the National Trust. This entails all gardening aspects and expansion to the Trust's gardens in the Lake District. I am mainly concerned with the two gardens at the moment here at Sizergh Castle and Acornbank, Penrith.

"The main attraction in the garden at Sizergh Castle is the rock garden of Westmorland Limestone. There is a unique collection of Dwarf Conifers and Hardy Ferns on this. Most of the *Picea abies* cvs. have formed large 5 ft. x 7 ft. specimens and include a 14 ft. x 5 ft. plant of *Picea abies* 'Ellwangeriana'. Other notable Dwarf Conifers include the rare *Pinus parviflora* 'Glauca' from Japan, and a 15 ft. wide carpet formed by *Abies procera* 'Glauca Prostrata'. The ferns in the garden include several varieties of *Osmunda* and I hope to introduce *Adiantum capillus-veneris* the British Maidenhair Fern soon, as this is a rare native in the area with a station 10 miles away, on the north coast of Morecambe Bay.

"Acornbank, like Sizergh Castle, is still being developed and the new feature here is the Herb Garden. So far we have managed to collect together some 200 different herbs, poisons, narcotic and medicinal plants, but there is still space for more before the garden will look properly furnished.

"My previous post, which I held for 3 years to September, 1970, was head gardener, Dollar Park, Falkirk Parks Department, and I am pleased to see two of the twelve apprentices, Messrs. J. McVicar and B. Millar, who worked with me, have qualified for the 1970 studentship intake at Kew."

D. M. A. Jayaweera (1949) retires from the post of Superintendent of the Royal Botanic Gardens, Peradeniya in June. He was a graduate of London University, and was attached to Kew as a student from 1947-49, during which period he was awarded an M.Sc. Later, in 1960, he was awarded a 2-year research Fellowship at Harvard University, and published papers on *Mussaenda*, *Duabanga*, *Woodfordia*, etc. Later he contributed to the section on Orchidaceae in the Smithsonian Institute Revision of Ceylon Flora project, while his book on *Medicinal Plants of Ceylon* is ready for publication.

During his period at Peradeniya, thousands of plants were introduced, and a breeding programme for Orchids and Anthuriums was actively engaged upon. In addition to research, he has been involved with landscaping, and designed the layout of the Industrial Exhibition in

Colombo in 1960 and the British High Commission premises. He is Hon. Secretary of the Ceylon War Graves Commission. (Ceylon Agency.)

C. W. Jones (1968) has left Torbay where he was Technical Assistant for the Parks Section of the County Borough since leaving the Grotto in December, 1969. He is now Technical Assistant to the Borough of Chelmsford Parks and Recreation Department, a post which he finds is a supervisory one, covering housing estates, allotments, disused burial grounds and various parks, etc. His wife Penny gave birth to their third child in March, 1971. He writes—"We were already proud parents of Karina (4 years) and Keith (2 years). We spent a very happy two years at Torbay with the sun, the sea and the holidaymakers. My work at Torbay involved the design and layout of the third mini golf course in the area. I found it all very interesting and the work also included the layout of sports pitches and children's playgrounds. My special duties included responsibility for garden allotments and trees, while during the summer organisation of the annual Torbay Junior Lawn Tennis Tournament came under my charge."

Jock Lawson (1941). "Jock is now retired from his position as Superintendent, Parks and Gardens, Yallourn, and when I saw him at the Canberra Conference he informed me that on receipt of the *Kew Guild Journal*, he had written to the Secretary, advising him of his new address and also recent movements. These were to be forwarded on to you, so that you no doubt have an up-to-date story of him. He is in good health and full of beans as usual. He apparently is spending a fair amount of time bowling, at which he is becoming quite an expert."—T. R. N. Lothian.

Mr. Lothian (1940) referred to the formation of an Australian Branch of the Guild in a letter to Mr. Stock—"Since my letter was sent on the 24th August, I have been able to round up quite a lot of information about Australian Kewites. Then more recently we had an International Parks Conference at Canberra at which a number of New Zealand Kewites were present. We discussed briefly amongst other things, the formation of an Australian Kew Association, but all agreed that distance within Australia makes it virtually impossible for us to meet on a regular basis. When you realise that the distance from Perth to Sydney either by rail and particularly by boat is the same as from London to Port Said, I think this gives you some idea of the problems we are faced with. Nonetheless, all members agreed that when opportunity presents itself, such as at Conferences, that Kew members should get together. Of course, as we travel around Australia we will endeavour to look up any of our old Kew people, should we be visiting areas in which they reside."

Mr. Lothian also wrote—"I still hold the position of Director of the Botanic Garden, Adelaide. However, over the last 8 years, I have held the additional position of Chairman, National Parks Commission, South Australia. Like other areas in the world, National Parks and

Nature Reserves are receiving tremendous publicity. Fortunately, we have had sympathetic Governments, so that over the last decade, the number of national parks has increased from about 6 to now nearly 80. These vary in size from quite small reserves from about five acres to our largest which is the arid area and of eight and a half thousand square miles. This is fascinating work but rather time consuming.

“With regard to our Botanic Garden, we now have three areas. The central area in Adelaide itself is in the process of being redesigned. Various new features are being incorporated, including a Horticultural Garden. This may sound a contradiction of terms, but we have developed an area with loggias and pergolas, together with various beds in which are growing suitable plants for the various positions. In other words, these are demonstration gardens. It is to be hoped that we will complete this project within the next month or so.

“Our Mount Loft Botanic Garden, which is situated about 12 miles from Adelaide in the Lofties (2,300 feet), now totals about 200 acres. This area is of two types—the slopes are still covered with Stringybark (*Eucalyptus obliqua*) and associated scrub vegetation. The lower slopes are cleared and are part of what was an extensive vegetable area. Each year we are planting about 1,500 to 2,000 trees, shrubs and other plants, and we are hoping that the area will be opened to the public by the mid-1970's. In this area we are specialising primarily in north temperate plants, particularly groups such as Conifers, deciduous trees and shrubs and Rhododendrons, also the associated herbaceous material.

“The final plan calls for a series of lakes in the lower portion in the valleys and these we are hoping to construct in about 6 to 7 years time. The third area covers an historic private garden ‘Wittunga’. This was established in the early years of the century by the father of the present owner, Mr. Keith Ashby. It contains outstanding collections of both Australian and South African plants, and covers about 35 acres. Several years ago, Mr. Ashby decided to publicly hand-over the Garden to my Board.”

Mike Lycett (1966) wrote on the 28th November—“You see I took the plunge and was married to Miss Joan Ann Pegler at Southend on 16th October. We have just returned from half-term and we spent a very pleasant week honeymooning in the West Country. We visited Stourhead Gardens and Montacute. Both have a very fine collection of flowering materials.”

E. W. B. H. Milne-Redhead retired as Deputy Keeper of the Herbarium and Library on 15th June. In addition to the presentation in the Herbarium Staff Room, a farewell dinner was held in the Gardens restaurant, when 112 friends and colleagues attended. On this occasion a wooden plaque was presented. It was a carved piece of Black Walnut from a tree which was grown at Kew, and was accompanied by a sheet of signatures. He was also presented with a 6-foot “Severn” garden seat, a garden table and a life membership of the Linnean Society. Both he

and Mrs. Milne-Redhead are very happy in their home and garden in Essex.

C. I. McDowell (1960) has been appointed Technical Assistant, New Plymouth Parks and Reserves Department, New Plymouth, Taranaki, New Zealand. (Please see Awards.)

Don McGillivray (1970), who was Australian Liaison Officer at the Herbarium 1970-71, is keen to maintain links with Kew through the Guild and by direct contact with Staff and Kewites. He is engaged on the taxonomy of the Australian *Proteaceae*, especially *Grevillea*.

E. G. H. Oliver (1969), who was South African Liaison Officer in the Herbarium at Kew during the period 1967-69, is now with the Botanical Research Unit in Stellenbosch.

Brian L. Pitcher (1960) wrote early in the year—"pleased to say that I am very busy in my line of gardening. Have an excellent crop of *Cymbidium* spikes at one of my clients. Have not the cultivation and the techniques changed since our time at Kew?"

A. Rich (1967) who left Warley and is now Chief Landscape Officer to Cardiff Parks Department, has sent some very interesting booklets which have been published by his department. These consist of attractively illustrated guides which take the form of nature trails through the important parks and open spaces.

Space does not permit a full report, but the booklet dealing with Wenallt may be taken as an example. This is a tract of woodland and heath comprising an area of 140 acres and situated on high ground to the north of Cardiff. In his foreword the Lord Mayor of Cardiff writes—"I hope that this booklet, one of a series of guides published by the City Council's Parks Department, Cardiff, and a contribution to the European Conservation Year, 1970, will be seen as an important factor in stimulating and creating man's interest in nature. The aim is to provide and improve existing facilities for the study and enjoyment of the areas of natural beauty within and around the city."

Roy H. Rumsey (1932). "Roy is still attached to the family business which is now in his own name. They have specialised in rose growing for a very good many years. Recently they have switched over to miniature roses grown from cuttings, and sold in 4-inch pots all the year round. Their products run into thousands per annum. At the present time, they are setting up production lines for container produced Hybrid Teas and Floribunda Roses. These will be on sale all year round. Apparently in appearance they are quite different looking plants from those which have been field grown and these will be sold mainly during the summer months when they are in full flower."—T. R. N. Lothian.

T. A. Russell (1967) writes from Allahabad, India, that tremendous pressure of human and animal population in the Gangetic plain, after nine rainless months, has left nothing but a flora of prickly poisonous

plants. Even in Kashmir, where he spent a month's holiday last summer he was appalled by the devastation caused by overgrazing. At 7,000 feet the wooded slopes of Pine and Spruce were grazed in turn by ponies, cattle, buffaloes and sheep and goats right up to the snow line. Mr. and Mrs. Russell had planned to return home next April, but may stay in India another year. He sends greetings to his friends at Kew.

E. Scarr (1967) wrote in July—"Life in Durban continues to run very smoothly in our balmy winter days. It hasn't been a very severe winter this year and apart from a few cold days, it has been very mild. We have had trouble with our treated Tulip bulbs again, due to the slightly warmer days. They bloom six weeks from planting, but as our average day temperature is approximately 63°F during the winter, it seems to have had a detrimental effect. The Daffodils are coming on well, so we hope they will give us a good show this year."

In a later letter dated 22nd November, Errol wrote—"Our daughter, Elizabeth Claire, arrived on the 8th September. Her arrival has altered our whole life, and no longer can we do what we want to do, when we want to. We also moved at the end of September into our own home.

"It has been quite an active year as far as visitors are concerned. Tom Everett (1927) paid the department a visit for 4 days in early September. He and Walter Everitt (1928) had a reunion, the first since they left Kew over 43 years ago. We plan to visit the U.K. in time for the Kew Dinner, 1972."

C. E. T. Shepherd (1955) moved from the Cadbury/Schweppes organisation to take up the position as Chief Superintendent with the Coventry Corporation in February.

P. Smallcombe, a Gardener Grade 1 on the Staff at Kew was promoted to Gardens Supervisor in Arboretum North Department, with effect from 1st February, 1971.

Mrs. R. M. Storr, a Gardener Grade 1 on the Staff at Kew, was promoted to Gardens Supervisor in the Temperate and Palm House Department with effect from 1st February, 1971.

R. H. Stuart Brown (1946) was appointed to the position of Parks Manager at Tees-side County Borough on 6th November. Previously he held the position of Parks Superintendent at Redcar for 12 years.

Iva V. Thornicroft (1928)). "Iva is now a landscape consultant. He was for many years the Curator at the Botanic Gardens in Hobart and subsequently resigned from this position. Unfortunately he was not at the Conference, and although he visited Adelaide, it was at a time when I was away from home and consequently did not see him. Principally, he is very active and as he says himself—"my main occupation is the beautification of the State of Tasmania".—T. R. N. Lothian.

Harry Townsend, Supervisor, Wakehurst Place, sent in this interesting account—"When the Leftovers Sports Club (L.O.S.C.), an all junior club in the East Grinstead area, running 5 football teams from 11 to 18, advertised for a manager for a proposed rugby section three seasons ago they little realised how quickly this team, to be known as "Felbridge Juniors" (L.O.S.C.) R.U.F.C., would develop.

"For the next season we are poised to add our fifth team, one each year from 12 to 17; we will be seeking to accept an invitation from the 'Canadian Schools' to tour British Columbia at Easter, 1973, at U17 level, and we are actively pressing to bring about the first steps in organised competitive rugby at U18 level in the South of England. Aside from our own club, which is unique in the country, we also organize and sponsor rugby tournaments of a 'new style' for local school teams to cultivate as much interest as possible in the game there. During each of the past two seasons, we have had at least 10 boys in the Sussex U15 XV, one of whom went on to play for England last season; while we already have an impressive record ourselves with victories in various age groups over many public school and area teams, including Millfield at U16 level this season.

"Finance naturally, is a problem, and altogether the boys raise some £700 per season, the contributions of interested vice-presidents also play an important part. The extent of our financial commitment may be realised if one thinks that we need 2 new strips per year (£95 each), and that *each* of our teams travel 10,000 man-miles per season to fulfil fixtures; and even with considerable parental help this is costly. Travel increases constantly as standards rise; and in the last 6 weeks of this season we meet teams from Bath, Tiverton, Northampton and Portsmouth. It is gratifying to find help from such personalities as Mike Davis (England, and England U15 coach) and former All-Black Hugh Burry, both of whom have taken training sessions here; whilst the guest of honour at the L.O.S.C. first annual dinner was Walter Winterbottom, General Secretary of the C.C.P.R.

"A major difficulty is that fixtures must generally be played on Sundays to avoid clashes with schools; but we are constantly eager to travel for the best fixtures and any information of even the vaguest invitation, will set us investigating the possibilities of further fixtures." (Can any Kewite help Harry?)

Perc. Trevaskis (1927). "Several years ago, Perc. retired from his position with the Commonwealth Public Works Department where he was responsible for the landscaping and planning around the Commonwealth projects. He travelled throughout Australia. Since his retirement over the past five years, he has been lecturing for the Council for Adult Education in Victoria. He is actively associated with the Victorian Royal Horticultural Society, and does a little landscaping design and consultant jobs for various municipalities and shires. They have a two-acre property in the Dandenong Ranges about 34 miles east of Mel-

bourne, where he and his wife are growing a very wide collection of interesting plants. He was at the Canberra Conference and looked very hale and hearty. Most certainly it was a pleasure to see him.”—T. R. N. Lothian.

John Tuck (1970) now has a post with the National Institute of Agricultural Botany as an Assistant Scientific Officer and works in the grass section. On 19th September, 1970, he married Miss Jennifer Lee (1969).

Mrs. Joan Tucker (1946) (Miss J. Sampson) sent an interesting letter to Dr. Charles E. Hubbard. She writes from Hobart, Tasmania, where her husband is a University Lecturer. With their five children they went out there last year and they seem to have become well established. Extracts from this letter make interesting reading—

“Certainly the whole experience is a bit like being born again but in some ways it is hard to believe we are not still in England. We miss a lot of the ordinary commodities which we had got used to and had more or less taken for granted, but the natural surroundings and the things which grow in the gardens, the skies and the weather, are all intensely interesting. We can hardly believe we have been through a winter, the seasons merge so gradually. Autumn can ‘run-over’ into spring. Berries and flowering bulbs together. We have a wonderful view of Mount Wellington from our home—the boys are beginning to enjoy working in the garden. All the children speak excellent Tasmanian.” She also adds—“Any Kewites that find themselves in this direction must be referred to me for hospitality, so please remember that—we are not at the end of the earth.” 27th October, 1971.

Joan was in the Gardens during the war years, and afterwards made the drawings for Dr. Hubbard in “Grasses”.

Miss E. M. Wakefield wrote in response to receiving the *Journal*—“I see in the *Journal* that Miss S. Morrissey’s address is given. I am almost sure that she was in Nos. 9 and 10 while I was in Nos. 7 and 8. This was during 1945 and 1946. Please remember me to her. My name was Edith Mon-Holland.

I. Wilkinson (1955) wrote in recently from Harbel, Liberia, West Africa—“I write to inform you that I left Malaysia in June, 1970, and arrived here in July, 1970. I spent almost 15 years in Malaysia and was sad to leave a country where I found so many good friends, married a Punjabi girl and almost adopted that way of life. The estates I managed were too outlying for central office policy and so they were sold, and me with them. Happily I was well compensated, due to the Malaysianisation Government policy.

“My last place was on the fringe of the jungle mountain range between Kota Tinggi and the east coast. I looked after two separate estates, 2,500 acres of oil palms and 2,000 acres of rubber. Wild life

was abundant. Elephants, deer and wild boar were a constant menace, especially the deer which ring-barked the young planted areas.

"Not knowing what to do I went to Perth, Western Australia, for 10 days. I was offered a job as a horticulturist with the Perth City Parks Department, but the offer of a good paying job with Firestones, plus the venture brought me to Africa.

"Firestones in Liberia must have the largest single block of planted rubber in the world. The planted acreage is 90,000 acres at Harbel. I'm sure it is to my advantage having come here. The African environment, and to work for Americans is a very new experience for me. Both are much different than what I have been used to, but worthwhile. I am concerned in my work with planting semi-jungle areas and replanting old rubber. Also with experimental tapping systems, using polybag collection twice monthly, instead of a daily collection from cups, and with various stimulant methods for extra crops."

W. B. Ward (1952) has been promoted to Chief Horticulturist at Hodges Gardens, where he had been Assistant Horticulturist since 1966. After Cambridge B.G. and Kew, Brian was Assistant Superintendent in the Parks Department of Johannesburg, S.A., before journeying to the United States in 1962, to work at Dillard University and Longue Vue Gardens, New Orleans.

J. A. E. Whitehill (1962). "Tony has been our Tree Advisory Officer (Botanic Gardens, Adelaide) for four years. He completed our four-year course prior to going to Kew, and on his return worked in outside sections of the Garden prior to his present appointment. His responsibilities include the management of five experimental plantations which we have scattered within 150 miles of Adelaide. These were established in the early 1950's (by myself) in an endeavour to obtain accurate information concerning ornamental trees and shrubs which can be grown without additional water within 14-15" rainfall areas. In addition, and because of the location of the experimental plantations, such other factors as soil tolerance, wind resistance, capacity of growth on various soils are all investigated. In addition, he is responsible to advise private individuals, organisations, councils, shires, etc., in all areas which lie beyond 25 miles from Adelaide, i.e. the country regions. He therefore travels fairly extensively through the southern portion of South Australia and some of his trips can be of several hundred miles in length. He actively participates through public lectures and also lectures to our trainees, so that the wealth of information he has, is being put to very good use."—T. R. N. Lothian.

Ernie Wittwer (1939). "Ernie has just been appointed as Superintendent, King's Park and Botanic Garden, Perth, Western Australia, 6000. His appointment came subsequent to the tragic death of the former

Superintendent, Arthur Fairall. He was also at the Canberra Conference and it was a pleasure to see him. Ernie forwarded complete notes on what he is doing and particularly in relation to the Botanic Garden at Perth, and rather than extract this, I am enclosing a copy of it for you. You may find room in the *Journal* for it to be published in a complete form or at least, in a more informative form than my extracts would give.”—T. R. N. Lothian. [Please refer to page 40.—Ed.]

G. P. Wood (1970) entered Writtle for the Final N.D.H. Course in September. Geoffrey lectured in the Autumn to the Mutual Improvement Society on his travels in the West Indies, which he undertook after winning the Thornton-Smith Travelling Scholarship. He wrote after his return from his tour—“The Address list in the back of the *Journal* proved most useful in enabling me to find accommodation and to make contacts”.

Keith Woolliams (1963) is now with the Pacific Tropical Botanical Garden, Hawaii, he writes—“As you see, I have joined the staff of the P.T.B.G. as horticulturist, a choice position offering prospects of inter-island travel, as we acquire satellite gardens on other islands. Here in Lowai Valley on Kauai (Southern Part), we have 170 acres and it may be extended to cover 200 acres. Enclosed are the *Bulletins* which describe it in detail. Sir George Taylor is a member of our Scientific Advisory Committee. My superior is Dr. William Stewart, Scientific Director, and it is really rewarding to work with him. His enthusiasm and vast knowledge are inspiring. The garden is only 18 months old and is in the early stages of formation, with the laying of roads and drains, etc.”

MISCELLANEOUS KEW NEWS

Ronald Rule, the Tree Gangs Supervisor, found two interesting examples of the insect life at Kew during the early part of the summer. Here are Mr. Airy Shaw's remarks on receiving these :—

“The oak-gall is an interesting one which I have not seen before. It is caused by a Cynipid gall-wasp, called *Andricus quercusramuli* L. There is a good picture in *Connold, British Oak Galls*, tab. XIV (1908). The recent little gall book by Darlington (1968) lists it among the ‘local or rare’ species. In the original *Wild Fauna and Flora* (1906), Nolfe states that this gall had not yet been observed at Kew, although the alternate form had been found by Miss Ormerod about 1875. This woolly gall apparently only lasts in this form for about a week, so you were very fortunate to find it. I am certainly delighted to have seen it.

“The large brown aphids from *Abies grandis* are *Cinara abieticola* (Cholodkowsky). This name does not appear in the aphids list in K.B. 1920 : 214 (under *Lachnus*) or 16 : 145 (1962) or 19 : 396 (1965). Unless the name is a synonym (which I will check), this seems to be a new record for the gardens.”

Reading University M.Sc. Course. A party of five students on the M.Sc. course at Reading University visited Kew for a week, during late June for demonstrations and talks. Two days were spent in the Herbarium and Library, one in the Gardens and Museums and one in the Jodrell Laboratory.

During October, Dr. Heslop-Harrison, wife of the Director, gave a lecture to the Mutual Improvement Society on Insectivorous Plants. In the opening stages of a most interesting talk the audience were reminded of the close friendship which existed between Sir Joseph Hooker and Charles Darwin. The great scientist was supplied with material from Kew including insectivorous plants and this and the help he received he frequently acknowledged. He mentions this in his book—*The Powers of Movement in Plants* (1880). “— we must have the pleasure of returning our sincere thanks to Sir Joseph Hooker and to Mr. W. Thiselton Dyer for their great kindness, in not only sending us plants from Kew, but in procuring others from several sources when they were required for our observations; also for naming many species, and giving us information on various points.” Hooker also conducted experiments on insectivorous plants at Kew to help Darwin.

Open Day. There was an overwhelming response to invitations to this event which was held on 1st May. By the 22nd April, 4,211 tickets had been sent out—2,400 to universities, schools and colleges, 783 to institutes, 704 to societies and the remainder to individuals. On the afternoon of Friday, 30th April there was an opportunity for staff and their friends to see the exhibits.

In June the Library ceased to be under the administration and control of the Keeper of the Herbarium, and became a separate department. Mr. R. Desmond has been redesignated Chief Librarian and Archivist.

The series of Kew Seminars continue to be heard at fortnightly intervals. In October the Director, Professor J. Heslop-Harrison, spoke on the subject—“New Inroads into the Plant Cell; Some Novel Cytochemical and other techniques and what they tell us”.

Herbarium Staff Visits and Expeditions Abroad, 1971. R. M. Harley (January-April: Brazil), Miss Mary Grierson (March-May: Israel, Sinai), Mrs. Susan Holmes (née Carter) (April: Kenya), C. Grey-Wilson (January-September: Afghanistan), G. F. Wickers (April-May: Sudan), P. S. Green (June-September: New Hebrides, Norfolk I.), D. Hunt (August: Mexico, U.S.A.), D. Philcox (July-September: Guyana), I. K. Ferguson (July: Sweden), A. R. Smith (July: Romania; December, 1971-January, 1972: Kenya), H. K. Airy-Shaw (September: Leiden), W. Marais (December: Mauritius, S. Africa), D. A. Reid (December, 1971-March 1972: South Africa) and Miss S. S. Hooper (October, 1971-January, 1972: India).

Tuesday Evening Lectures, 1971. 5th January: Brian Mathew—"Hot foot in Turkana"; 19th January: Martin Sands—"The vanishing forests of Sulawesi (Celebes)"; 23rd February: J. C. Robertson (Visitor)—"Lesotha and Swaziland"; 9th March: Mrs. Valerie Jury (née Mulford)—"A naturalist in New Zealand"; 9th November: Martin Sands—"New Corners of New Guinea"; 30th November: Raymond Harley—"Eu te Amo, Meu Brasil"; 14th December: Christopher Grey-Wilson—"Not just a short walk in the Hindu Kush".

A most useful account of the new developments in the Lower Nursery area was published in the September, 1971 issue of *Parks and Sports Grounds*, pages 1236 to 1237. This includes three illustrations, one of the interior of a Frampton-Ferguson M44 house, and two of the interior of the Accommodation Building showing the main working space, corridor (connecting the building and houses) and the staff mess room.

Kew Guild Wreath for the War Memorial. For the first time the Kew Guild paid for the wreath placed by the War Memorial in the Gardens. In the past the Gardens Staff have paid for this by voluntary contribution.

Additions to the Photograph Collection.—From Bermuda, a group photograph which includes R. G. Thomas (1958), A. Pierce (1960), D. J. Moore (1956) and K. R. Woolliams (1963).

—Sent by Noel Lothian (1940), two photographs taken during the Meeting of the International Federation of Parks and Recreation Administration, Sixth International and First Australian Regional International Congress of Park Administration held in Canberra, A.C.T. Australia in October, 1970. The Kewites appearing in these are—Noel Coad, George Dean (1937), Ian Galloway (1953), Phil Jew (1955), Frank Jollie (1937), Jock Lawson (1941), Noel Lothian (1940), John Mitchell (1966) Charles Rudd (1930) (on tour from Britain), and Ernie Wittwer (1939).

—Sent by Wilfred H. Tuck (1912), Group Photograph taken at Cairo, 1916. Mr. Tuck writes—"I was sent from Gallipoli to Cairo, Ghesve Hospital, two civilians came for my kit for storage and to my astonishment they were two Old Kewites, now passed, Crouch and Walsingham. They were working in the Horticultural Research Station. The Director of this establishment, Mr. Brown, is in the group, also two other Kewites."

Two students, M. J. Whitehead and D. J. Trevan, spent the month of June collecting plant material in Macedonia, an area of Europe still not fully explored botanically and rich in endemic species. They brought back to Kew approximately 280 live plants, bulbs, seeds and herbarium specimens, mainly from the mountain ranges of Vermion and Pindus in Greece, and Mt. Peristeri in Yugoslavian Macedonia. The expedition

was supported by the Alpine Garden Society and the Bentham-Moxon Trustees. A full report will appear in next year's *Kew Guild Journal*, by which time many of the plants collected will have flowered and been identified.

Kew Art Club. The Art Club has recently been formed to encourage both students and staff to develop their artistic interests and to utilise the plant-life at Kew in order to produce a high standard of botanical art. Great interest has been shown in the Wednesday evening sessions of plant painting and drawing, and it is hoped to invite professional artists to direct our efforts. The club extends a warm welcome to anyone associated with Kew and interested in botanical art.

ANTHONY ROSS.

ONE HUNDRED YEARS AGO

Gardeners' Chronicle, 1st April, 1871, p. 446.

"Mr. Hooker in company with Mr. John Ball, a former President of the Alpine Club, and Mr. Maw, a well known plant amateur, left London on Saturday last for Morocco. A gardener from Kew forms one of the party, and it is to be expected, if the travellers succeed in penetrating beyond the coast, that valuable results, scientifically and horticulturally, will be forthcoming."

(This was Sir Joseph Dalton Hooker, Assistant Director of Kew, May, 1855, until he became Director in November, 1865, in succession to his father, Sir William Jackson Hooker, the first Director. The gardener mentioned was Edward Crump. After leaving Kew in August, he took up Market Gardening near Leamington Spa. He died in 1928 (*K.G.J.* 1928, p. 628). An account of the journey is given in W. B. Turrill's book *Joseph Dalton Hooker*. Published by Nelson, pages 151 to 159.)

Gardeners' Chronicle, 17th June, 1871.

"The first of a series of six lectures on "The Natural History of Flowering Plants" was delivered to the Royal College of Science, Dublin (where he was a Professor of Botany) by Professor Thiselton Dyer." (William Thiselton Dyer was appointed Assistant Director of Kew in June, 1875, and was Director from 1885 to 1905.)

In the early part of 1871, several readers of the *Gardeners' Chronicle* engaged in a controversy in the Home Correspondence columns—Cacti v. Orchids. On 6th May, J. Croucher wrote in reply to a challenge to name 20 Cacti with as much beauty as the 20 Orchids—"The fact is that the public have had no chance of judging these plants, for though at Kew they have a fine house of succulents, it is entirely unfit for the culture of the smaller Cacti".

Later another correspondent, F.W.B., wrote in support—"I venture to assert, without fear of contradiction, that no class of plants excites

a greater amount of interest, among the many thousands who visit the Royal Gardens at Kew every year, than the Cacti and other succulents. Everyone admires, or is astonished by their graceful, peculiar or grotesque outlines, from the fair dame who can boast of her coronet of strawberry leaves, to Jane the Nursemaid, who divides her attentions pretty equally between the Cactuses 'and baby'".

THE VISIT OF EMPEROR HIROHITO TO THE ROYAL BOTANIC GARDENS, KEW

6th OCTOBER, 1971

Summer extended its warmth on the occasion of the visit by the Emperor of Japan and his Empress. The sky was cloudless, and the trees, still clad in their summer green, seemed to bow gracefully in the gentle autumn breeze. This serenity was highlighted by a throng of several hundred visitors, who encircled the plot where the Emperor was to plant a tree—*Cryptomeria japonica*—to commemorate his visit to the Gardens.

The arrival of the royal entourage at 3.20 p.m. was marked by a courteous ovation of applause as His Highness alighted from his car. The Mayor of Richmond, Mrs. Holly Champion; the Director of Kew, Professor Heslop-Harrison, and his wife, Dr. Heslop-Harrison; The Keeper of the Herbarium, Mr. P. Brenan; and the Curator, Mr. R. Shaw, were each presented to the Emperor and the Empress. The Empress, dressed in a light blue summer outfit, was given a bouquet of roses by the Mayor of Richmond. Emperor Hirohito, a frail figure, was then escorted to the site of the tree planting. As he walked majestically to the ceremony cameras clicked repeatedly, and the crowd applauded. When he had scooped a few spades full of soil, the Director courteously led the swelling numbers of spectators to further applause. After posing for photographers the party moved to their respective cars. The Emperor was then taken to the Herbarium, whilst the Empress was driven to the Palm House.

The summer bedding of the Palm House, still a profusion of pastel colours, attracted conversation between the Empress and Dr. Heslop-Harrison before they entered the Palm House. From there, the Empress visited the Japanese Gateway where she was joined by the Emperor. They returned through the Gardens to the Jodrell Gate, where the Emperor went into the Laboratory and the Empress to the Rock Garden.

The reception, which the royal couple received was generously cordial at all points of their tour and the necessity for so many police and security men did not seem logical at the time. As one newspaper reported "security guards appeared to be up every gum tree." Twenty-four hours later the ceremonial tree was damaged beyond all hope of survival.

ROBIN BLETSOE.

TREES AND THEIR PRESERVATION

Extract from the Minutes of a Joint Meeting of the Vestrymen of the Parish of Richmond on 19th December, 1859.

A letter, of which the following is a copy, was read from Sir William Hooker (Director of Kew) respecting the Elms on the Hill.

ROYAL GARDENS, KEW.

30th November, 1859.

Sir,

I would with pleasure recommend to the Richmond Vestry a person competent to examine and report on the safety or otherwise of the large Elm trees growing on the Terrace if I knew such an one in whose judgement and knowledge on such matters I could place *entire confidence*. But it is really a most difficult and responsible duty to undertake, and it requires long familiarity with *the trees* and constant watching of them to ascertain how far they may or they may not be in a state of insecurity, whether from age and natural decay, or the injurious effect of insects (the Larva of the Goat Moth especially) or of Funguses. My own view of such very aged trees is that they must be unsafe where there is a great thoroughfare, and it is especially the case with the aged *Elms*, that they are very liable to be blown down or to lose great limbs when there is little or no apparent external injury.

I have often the greatest difficulty in the case of our own large Elms, both without and within our grounds, and am often thankful when the public (if it is not on too slight grounds) send me a Memorial complaining of their insecurity, for I have no right to be indifferent to the public welfare. An application of this kind was made to us last year and I felt that I had only one of two courses to pursue—It was a long row of splendid Elm trees next the river and I found that I must either cut them all down and plant others, or lop them. I preferred the latter course, but the consequence is the trees are, and will be for some time, very ugly. They are however rendered more secure and they may yet recover some of their beauty. If there had been houses near, or very great traffic under them I should probably have preferred cutting them down, but I would not dare to be responsible for the safety of any very old Elms.

I am, Sir,

Your obedient Servant,

(Sgd.) WILLIAM HOOKER.

Henry Smith, Esq.

We thank Arthur Woodward (1947), Parks Manager, London Borough of Richmond-upon-Thames, for bringing this to our notice.

NOTES ON INTERESTING BIRDS RECORDED IN THE
GARDENS AND THE VICINITY, 1970 AND 1971

Blackcap—has become increasingly common within recent years and is believed to have bred in Kew. **Brambling**—a few seen by Cumberland Gate and in Syon Vista in February, March and April, 1970, including 6 to 7 in the Stable Yard on 22nd March, 1970. None were observed during 1971. **Bunting, Reed**—1 was heard singing opposite Isleworth Gate on 11th May, 1970. **Buzzard**—2 were seen at great height in early November, 1970. **Chiff Chaff**—during 1970 it was seen and heard and could have bred in Kew. Less common during 1971. **Cormorant**—up to 12 seen on a poplar in Syon Marsh near the foreshore during both winters (1970 and 1971). **Cuckoo**—heard on 11th May, 1970 and on 17th May, 1971, but it is becoming a very irregular visitor. **Curlew**—heard and seen flying over the Gardens during the evening of 28th July, 1970. **Dove, Stock**—1 heard in Queen's Cottage Ground on 6th July, 1970. **Fieldfare**—a few seen from January to April, 1970, including 24 in trees on Cumberland Mound on 5th March, 1970, also 50 to 60 near Lion Gate on 21st October, 1970. **Flycatcher, Spotted**—bred in both 1970 and 1971, averaging 5-6 pairs. **Goldcrest**—a well established breeder and has increased. **Goldfinch**—seen during 1970 and in late March, 1971, 45-50 roosted in the hollies on Oxonhouse Gate. **Grebe, Crested**—1 seen on the Lake on 21st April, 1971. **Grebe, Little**—in both years 2 pairs have bred in Kew. **Hawfinch**—seen in 1970 and 1971. 1 pair definitely bred in Kew during 1971, and a young bird was seen being fed by parents in the Queen's Cottage on 8th July. **Heron**—25-30 seen by the river opposite Syon House. **Jackjaw**—1 was seen flying over the Gardens on 14th March, 1970. **Kestrel**—seen in both years and is believed to have bred in Kew. **Linnet**—seen during 1970 and 1971, including 35 entering the Holly Hedge by the Rose Garden to roost on 13th March, 1970. **Lapwing**—24 were seen flying over the Gardens on 3rd March, 1970, and 30 on 10th March, 1970. There was a decrease in numbers seen flying over. None were seen during 1971. **Maggie**—a pair and a few single birds seen in 1970, during 1971 a pair were seen regularly during the year, they are believed to have bred in Kew, the adults and 3 immature young were seen in Queen's Cottage Grounds on 27th June. **Martin, House**—on 9th September, 1970, 120 (approx.) were on the wing over the Lake for insects, also seen in some numbers during the spring and summer of 1971. **Nuthatch**—these breed and have increased in numbers. **Owl, Little**—these have been seen on occasions and are heard frequently, and are believed to have bred in Kew. **Owl, Tawny**—these breed in Kew, they are seen occasionally and are heard frequently. **Pochard, Common**—4 were reared on the Palm House Pond in 1970. **Redpoll**—seen occasionally in the early part of 1970 with 8 on an alder tree by the Lake on 19th January. **Redwing**—numerous on occasions during both winters with from 100 to 200 in the Rhododendron Dell on 18th December, 1971. **Sandpiper, Common**—seen on the river by Isleworth during 1970 and 1971. **Siskin**—they have

been seen in small numbers during the early part of 1971. **Skylark**—1 in Syon Vista in March, 1970, and 1 was observed flying over the Gardens during 1971. **Swallow**—was seen in both summers hunting over the Lake. **Swift**—bred within the vicinity of the Gardens. **Teal**—a duck was seen on the Lake, once during 1st August, 1970, and on 21st September, 1971. **Tit, Long Tailed**—this bred in the Gardens during both 1970 and 1971, and appears to be on the increase. **Treecreeper**—bred in 1970 and 1971. **Wagtail, Grey**—seen occasionally. **Wagtail, Pied**—seen in small numbers and bred, but is less common this year. **Warbler, Willow**—heard and seen, but is less common. **Woodpecker, Green**—bred near the Gardens and is most common in neglected trees. **Woodpecker, Great Spotted**—is becoming less evident possibly because of the high standard of tree work. **Woodpecker, Lesser Spotted**—seems to be increasing and is more frequent in Queen's Cottage Grounds. **Wheatear**—1 seen during spring migration, 1970, on the scree beds, Alpine Department. **Whitethroat, Lesser**—1 heard by King William Temple on 12th May, 1970.

Notes which were kindly made up for the *Journal* by Mr. A. F. Mitchell (Gardens Constable, Official Bird Observer).

KEW'S LICHENS

In a survey of the lichen flora of the London Area, within a radius of 16 kilometres from Charing Cross, Mr. J. R. Laundon has found that 92 out of 165 species recorded have become extinct during the past 150 years (*The London Naturalist*, No. 49, 1970).

Mr. Laundon has mapped the lichen zones of Greater London from the centre—where only one species (*Lecanora dispersa*) survives—to the outer suburbs, and he has shown that they are better correlated with the concentrations of sulphur dioxide than with the smoke levels.

The first paper on Kew lichens was published in 1906 when O. V. Darbishire (1870-1934) listed 15 species for the Gardens. Four of these are now extinct in the London area, and four others have not been recorded since then.

The extinct species originally recorded by Darbishire were: *Lepraria membranacea* (from shaded stone in the Rock Garden), *Pannaria pezizoides* (from bare ground on slope of bank facing Palace Grounds), *Peltigera canina* (on soil among grasses) and *Parmelia saxatilis*. *Diplo-schistes scruposus*, another now extinct species, was collected from the "grass walls of Kew Gardens" by R. Brown in August, 1798.

As none of these species now occur in the London area I feel doubtful whether they will ever reappear at Kew unless accidentally introduced with rock or soil from outside the London area.

Lichens cannot tolerate air pollution. The death of lichens may be caused by the thalli absorbing contaminated substances from the rainwater and so building up lethal concentrations.

Air pollution affected the lichen flora only in the small built-up area of London before the early 19th century. The main decline appears to have taken place during the Industrial Revolution around the middle of the 19th century, when polluted air first spread far beyond the built-up area. The Clean Air Act of 1956, and the establishment of Smoke Control Areas, helped to reduce smoke concentration substantially with little significant reduction in sulphur dioxide pollution.

Another source of smoke, smut and obnoxious gases was removed from the vicinity of Kew in September, 1963, when Brentford Gas Works closed down after causing concern to Kew for 142 years.

Kew lichens occur in the following habitats : —

1. On the soil.
2. On the bark of trees.
3. On calcareous stone or concrete.
4. On shaded walls or shaded stone.
5. On an asbestos-cement roof.

Species occurring on the soil : *Cladonia chlorophaea* (and on stone), *C. fimbriata* and *C. furcata*.

Species occurring on the bark of trees : *Lecanora conizaeoides*.

Species occurring on calcareous stone or concrete : *Caloplaca citrina*, *Cladonia chlorophaea* (and on soil), *C. coniocraea*, *Lecanora muralis* (and on asbestos-cement roof), *Lecidea coarctata* (and on brick walls), *Physcia caesia*, *P. orbicularis* (and on asbestos-cement roof), and *Sarcogyne regularis*. All, except the *Cladonia* spp., and *Sarcogyne regularis*, are nitrophilous species, presumably thriving on grit and dust.

Species occurring on shaded walls or shaded stone : *Lepraria incana*.

Species occurring on an asbestos-cement roof (collected by Mr. P. J. Edwards) : *Catillaria lenticularis*, *Lecanora muralis*, *Lecidea stigmatea* and *Physcia orbicularis*. The last mentioned community will disappear from the Gardens when the Spirit Store and Cycle Shed near the Herbarium are pulled down. *Catillaria lenticularis* was the first record for London area.

Lichen conservation requires a reduction in sulphur dioxide concentration, and the preservation of surviving semi-natural vegetation, important old limestone memorials, old walls, and asbestos-cement roofs.

The following is a full list of the Kew lichens : *Caloplaca citrina* (Hoffm.) Th. Fr. *C. decipiens* (Arnold) Jatta*. *C. heppiana* (Müll. Arg.) Zahlbr.**. *C. teicholyta* (Achi.) Steiner*. *Candelariella medians* (Nyl.) A.L. Sm.*. *Catillaria lenticularis* (Ach.) Th. Fr. *Cladonia chlorophaea* (Flörke ex Sommerf.) Spreng. *C. coccifera* (L.) Willd.**. *C. coniocraea* (Flörke) Spreng. *C. fimbriata* (L.) Fr. *C. fucata* (Huds.) Schrad. *C. pyxidata* (L.) Hoffm.**. *Collema limosum* (Ach.) Ach.**. [*Diploschistes scruposus* (Schreb.) Norm.], *Lecanora conizaeoides* Nyl. ex Crom. *L. dispersa* (Pers.) Sommerf. *L. muralis* (Schreb.) Rabenh. *Lecidea coarctata* (Sm.) Nyl. *L. stigmatea* Ach. *Lepraria incana* (L.) Fr. [*L. membranaceu* (Dicks.) Vain.]**. [*Pannaria pezizoides* (Webber)

Trevis]**. [*Parmelia saxatilis* (L.) Ach.]**. [*Peltigera canina* (L.) Willd.]**. *Physcia caesia* (Hoffm.) Hampe. *P. orbicularis* (Neck.) Poetsch. *Sarcogyne regularis* Körb.

* St. Anne's churchyard only.

** Last recorded by Darbshire.

Extinct species are in brackets.

JOHN L. GILBERT.

Footnote : Since Mr. Laundon's paper was written, the following additional species have been recorded for the Gardens : *Candelariella aurella* (Hoffm.) Zahlbr., *C. vitellina* (Hoffm.) Mull, Arg., *Lecanora campestris* (Schaer.) Hue, *Rinodina subexigua* (Nyl.) Oliv., *Stereocaulon pileatum* Ach., *Verrucaria muralis* Ach., and *V. viridula* (Schrad.) Ach. forma *tectorum* (Massal.) Laundon. All were recorded by Mr. B. J. Coppins on April 17th, 1970.

KING'S PARK AND BOTANIC GARDEN, PERTH, WESTERN AUSTRALIA

Perth, the capital of Western Australia, has long been famous for its King's Park, a tract of one thousand acres set aside in 1872, right in the heart of the metropolitan area. The Park has three main functions. Firstly the preservation of scenic attractions, especially the bluff of Mount Eliza with its magnificent views over the city and the Swan River. The provision of recreational features such as a restaurant, children's playgrounds, barbecues and an artificial lake. Secondly, the Park acts as a national shrine and contains the State War Memorial and several other memorials and monuments. Thirdly the Park is a botanical reserve. Three-quarters of the area consists of bushland with a network of foot-paths along which people can enjoy the colourful display of wild flowers in the springtime.

In 1961 the government decided to create a botanic garden in the park, to be primarily devoted to the cultivation of Western Australian species. The wild flowers of the south western part of Australia are world famous for their most colourful displays in springtime and the very high number of endemic species. About eighty-five per cent of the species in this region occur only there and nowhere else.

Work on the Botanic Garden started in 1962. A seed collector, travelling all over the state, began collecting seed and other propagation material. A nursery was established and produces an average of 15,000 native plants each year. So far over 2,000 different species have been grown of which about 1,200 have been successfully established in the garden. The site of the Botanic Garden was also selected in 1962 and the preparation for the first planting was put in hand. The Garden is situated on the upper slopes of Mount Eliza and the views over the river and city add to the attractiveness of the site. The West Australian native section covers approximately 30 acres and an additional two acres each are devoted to the floras of California, South Africa and the

Mediterranean, areas which have a climate similar to that of West Australia. A valley in the Botanic Garden has been turned into a water garden. The main feature is the large pool containing the Pioneer Women's Memorial Fountain. The water flows down a small stream, passes over a seven-foot waterfall and down a winding brook, through several pools and is then pumped up again to the top. At the present time the garden had been almost entirely planted and offers an attractive picture of soft grass walks winding through trees and shrubberies of interesting and colourful native species.

The Garden however, does not only act as a tourist attraction and recreation area. It has educational and scientific functions as well. The most important being the study of the growth of native plants. Refusal to germinate and failure to produce fertile seeds are not unusual in native species, and only biological research can give the answer to these problems. Records are kept for each species and data such as seed treatment, germination time, annual growth, flowering time, response to garden treatment, etc., are entered. This information will be assessed at a later date and made available to other botanical institutions, commercial growers and amateurs.

A task peculiar to King's Park is the management of the natural bushland. Every summer, the staff has to fight several bush fires and precautions have to be taken to prevent large-scale damage. The major problem is, however, caused by the rapid spreading of the non-indigenous species, mainly the South African veld grass, *Ehrharta calycina*, which if not controlled, will take over completely, suppressing any regeneration of the native bush. Various trials on veld grass control are still going on and new methods will be tried out.

E. WITTWER (1939), *Superintendent*.

A CHANGE OF DIRECTOR

Sir George Taylor, then as Dr. George Taylor, took over his duties as Director on 1st October, 1956. The *Journal* of 1956 (*K.G.J.*, Vol. VII, No. LXI, pages 344-345), published an account of the work and career of Sir George covering the period up until the time he took over, with a full-page "head and shoulders" photograph. The issues of the *Journal* which followed contain many accounts with photographs of the works and activities of Sir George Taylor as Director, and we felt that what was really needed was a neat summing up article. Here we were lucky for the Editorial Committee of the *Kew Bulletin* has kindly given permission of the publication of this account which was written by Mr. Meikle.

THE RETIREMENT OF SIR GEORGE TAYLOR

Sir George Taylor, D.Sc., F.R.S., F.R.S.E., F.L.S., V.M.H., retired on 31st May, 1971, after almost 15 years of assiduous and unremitting attention to his responsibilities as Director of the Royal Botanic Gardens. He was already well known to almost every member of the Kew staff before he took office on the 1st October, 1956: most of the botanists had come to know him as Keeper of the Department of Botany at the British Museum (Natural History) as Botanical Secretary of the Linnean Society of London, as a sectional Secretary of the British Association, as monographer of *Meconopsis*, as the author or joint-author of many papers on *Podostemaceae* and *Potamogeton*, or through his contributions to the various African Floras then in course of preparation at the British Museum. The gardening world was no less aware of his manifold abilities: his garden at Rickmansworth had for many years given delight to those who find pleasure in growing, or trying to grow, rare and difficult plants; his travels in the Himalayas with Ludlow and Sherriff, and his long association with the Royal Horticultural Society had made his name a familiar one in horticultural circles throughout the world. Indeed it could be said that, in him, combined in one person, were all the necessary qualities and qualifications for that botanical factotum, a Director of Kew. In retrospect, it becomes clear that this summing up of his capacity was correct, and that high expectations were amply fulfilled; with the passing of time I venture to suggest that Kew, and the wider world of botanists, will become increasingly aware of their indebtedness to a Director who never spared himself in enhancing the beauty and the importance of the Gardens, or in promoting or safeguarding the interests of its staff. Once Sir George had endorsed a scheme, the proponent could depart assured that he would neither rest nor grow weary in assisting its progress to a satisfactory conclusion. But he was a shrewd judge of schemes, and was quick to detect any flaw, omission or pretension, however glibly or persuasively argued. As such, he made an outstanding chairman—firm, but not impatient, with an exceptional gift for "hitting the nail on the head".

So many changes and improvements have been carried out at Kew in the course of Sir George's active tenure of office that to catalogue them individually would largely defeat the purposes of this short appreciation. The Heath Garden lends interest and colour, at all seasons, to a region of the Gardens which, in recollection, always seemed to lack character or attraction, and the same might be said even more emphatically, of the areas about the Cumberland and Victoria Gates, once gloomy expanses of dusty evergreens, but now gay with Camellias, Rhododendrons, Lilies, Meconopsis and an enticing range of colourful shrubs and perennial herbs. One recalls the erection of the new flag-staff, with all the attendant excitement, and the installation of the Hercules fountain, guarded by its splendid Chinese lions. The red-letter days were, of course, the two Royal visits, first, for the bicentenary on 2nd June, 1959, when, on a sparkling day, with the Gardens more beautiful than I can remember, the Queen re-opened to the public the newly refurbished Palm House; and then the no less momentous day when Her Majesty declared officially open the magnificent New Wing of the Herbarium, and added the Queen's Garden to the long list of attractions offered to our visitors. One might continue—the new Jodrell Laboratory and Lecture Hall, new greenhouses, improved Rock Garden and new raised beds—but such an inventory would scarcely at all indicate the scale of the improvements that have transformed almost every department of the Gardens.

To have witnessed all these changes has been an education; to have been responsible for them a major achievement. As was said of Sir Christopher, so may it be said of Sir George—*si monumentum requiris, circumspice*.

R. D. MEIKLE.

Now to the future—Professor John Heslop-Harrison took up his appointment as Director on 1st June, 1971 (*K.G.J.*, Vol. VII, No. LXXV, pages 1167 and 1170). We are very fortunate indeed to have the following contribution from the Director—

THE PROSPECT AHEAD

A secondary effect of the Green Paper on Government Research and Development has been to cause many state institutions to take a fresh, and critical, look at their functions. The Royal Botanic Gardens have not escaped the need for introspection, and I have recently spent some time trying to formulate in brief a statement of what we actually do, or try to do, in the gardens, laboratories, offices, libraries and museums at Kew and Wakehurst Place. The analysis has brought out the surprising width of the functions we seek to discharge, and I am sure it cannot but be of interest to Guild members, whatever the nature of their Kew links. Here are the categories into which our activities mainly fall :—

- (a) Provision of public amenity and education through the Gardens and Museums.
- (b) Maintenance and curation of the largest existing collection of living plant species, exceeding 20,000 taxa, and the operation of a seed distribution system and a seed storage bank.
- (c) Horticultural training through the Kew Diploma Course.
- (d) Provision of identification, advisory, quarantine and other services for government agencies, plant-oriented research establishments, educational institutions, industrial and other companies, and private individuals. These services are world-wide in scope, and are largely directed towards the Tropics.
- (e) The conduct of basic research in plant taxonomy, anatomy, physiology, cytology, biochemistry, ecology, genetics and chorology.
- (f) Plant introduction, and certain types of applied research concerned with plant exploitation in horticulture and with horticultural technology.

Few institutions indeed can lay claim to quite so many roles ; and the list shows why it is that "Kew" can mean so many things to so many different people. For the individual, the facet that catches the light is the one to which he directs his attention : the casual tourist, "here for the flowers", may not even be aware of what an herbarium is about, while the intent visiting scientist may know nothing more of the Gardens than the shortest route they offer between his laboratory and the 'bus stop.

So when one attempts to peer ahead and see how the Royal Botanic Gardens might fare during the last quarter of the twentieth century, the besetting difficulty is to trace the broad patterns among the wealth of sometimes interlacing and sometimes seemingly independent threads. One of the problems at Kew is indeed to achieve and maintain the flow of information and ideas between departments and sections, for the geographical dispersal of the facilities readily fosters parochialism. So the task taken up by the new Scientific Policy Committee is largely an integrative one, to bring together and co-ordinate several activities that require inter-departmental collaboration, or have institutional significance transcending that of a single Department. The Committee, which

had its first meeting in July last, includes members from all departments. Through a structure of sub-committees, it is concerning itself with policies for the living collections, conservation, educational activities, technical services, scientific equipment, computerisation and the like. A busy-body organisation no doubt, but one which with its broad representation of Kew and Wakehurst staff should have a good deal to contribute to forward thinking, and to keeping people ahead of events—or at least abreast with them.

Among the Departments, the Curator's is certainly the most conspicuous, and events here are never far from the public eye. The development for which the 'sixties will probably be best remembered is the acquisition of Wakehurst Place. Considerable although the man-made diversity of the Kew site itself may be, there is little more that can now be done to extend the range of habitats, but by seizing a timely chance Sir George Taylor added at Wakehurst some 490 acres of much more diverse topography and soil character. The beauty of Wakehurst will need no emphasis for those who have visited the garden and arboretum, already showing the unmistakable evidence of Kew management expertise. Undoubtedly the coming years will see substantial enlargement of the scope of the collections there, with an increasing emphasis on the important role which now falls to all scientifically-oriented botanic gardens to serve as refuges for the conservation of threatened species. Parts of the estate have already been set aside as reserve for the native Sussex flora; we may look forward to judicious planting elsewhere which will add both to the interest of the collection and its botanical value.

Species conservation has always been a major preoccupation at Kew, and its importance will inevitably grow. Kewites have long taken satisfaction in the knowledge that the collection maintained in cultivation is the largest in the world in taxonomic diversity, but not all may have appreciated the responsibilities this entails. Doing the job properly involves not only the highest horticultural competence, but also a steady input of scientific information to maintain the standard of botanical curation at an acceptable level. The aim must be to hold well-documented and properly identified material wherever possible, for after all nothing else is really worth the time of a botanic garden claiming scientific status, nor is anything else likely to serve satisfactorily the needs of conservation and research. Approaching this target means a continuous programme of review, in which culling and replacement are likely to play an increasing part. The responsibility devolves not only upon the Curator's Department, but also upon others, and in particular the Herbarium. The Cultivated Plants Section currently is a major factor in maintaining the liaison between the botanical and the horticultural staff. New links are developing through the work of the Scientific Policy Committee, particularly for such matters as conservation and the organisation of the systematic collections. For the future it will be imperative that collaboration be even fuller, for success of the rationalisation policies depends upon close co-operation in planning—

and indeed in execution, since the acquisition of authentic material rests so much on the extra-mural work of the botanists.

Technical development in the Curator's Department goes well. There have been delays in bringing the new glass in the Lower Nursery into use, but there is no doubt that the management advantages it will bring are going to be very great. The present construction will by no means bring an end to the work in the Lower Nursery area. The next undertaking will include new Curator's Offices, permitting the Department's final extrication from Descanso House. The planning is taking into account the need for tailor-made accommodation for new propagation processes. There is now a general awareness of the potential importance of sterile-culture propagation methods, and for Kew the success of the orchid programme must surely have been proof enough that the test-tube has its proper place in horticultural technology. The challenge now is to adapt and apply other examples of laboratory know-how for practical purposes, and the new unit is envisaged both as a centre for developing methods and for applying them in the day-to-day work of the Gardens.

The progressive withdrawal of the Curator's interest in the Melon Yard is meaning that additional glass is becoming available for the use of the Jodrell Laboratory, and space also for an expected expansion in the quarantine work. More—and better—scientific glass is currently an important need, and one likely to be enhanced by the expansion of work in cytogenetics and reproductive physiology depending on the use of living plants. So far as the Jodrell building is concerned, the fate that attends all new laboratories has already overtaken it—it is filled to capacity, and indeed is overflowing. Each of the Sections, Anatomy, Cytology and Physiology, shows signs of saturation. Whatever may be the long-term solution to the problem—and ultimately it can only be by further building to keep pace with the growth of the discipline—some short-term relief is in sight, for the likelihood is that the Physiology Section, with its important seed research and attendant services, will move to Wakehurst Place and occupy part of the Mansion. Notwithstanding the physical separation from Kew, physiology at Wakehurst makes a great deal of sense. There, space should not be a limiting factor in the development of greenhouse and growth room installations or accommodation for the Seed Bank. The limitations, at least initially, are likely to be of a different nature, arising from staffing restrictions. The transfer of the Physiology Section from the Jodrell will provide some space for the expansion of Anatomy and Cytology, but it is unlikely that the building will be able to accommodate other units. The Biochemistry Laboratory, a commensal—although already almost assimilated—ARC unit, occupies temporary premises in the Melon Yard. Its current and potential importance for many aspects of work at Kew, including that in the Herbarium, is great, and we must surely look forward to improvements in its facilities and extension of its services in coming years. The Cell Physiology Laboratory has found a home in one wing of No. 49 The Green—the wing which in the domestically-

speaking more expansive days of the Hookers constituted the Servants' Hall. A transmission electron microscope has been installed in a former larder, and spectrophotometers now grace a one-time tweeny's bedroom.

For the Museums Department the prospects for the immediate future are mixed. On the one hand, the frustrations of Museum No. 1 are likely to continue for some time yet; but on the other, there is the stimulation of looking forward to what might replace it—for replacement in some form there must be if the long-standing and warmly esteemed cultural and educational role of Kew is not to atrophy. Immediate new outlets for imaginative planning are already at hand in the rehabilitated Orangery in its new role as an orientation, display and art centre. They should also appear at Wakehurst Place, where some of the larger rooms of the mansion offer themselves for the same kind of development.

The Herbarium is the largest of the scientific departments; conspicuously so in physical size, in which its growth has been saltatory, the last of the 30-year or so increments having taken place in 1967. Its work has by its very nature a quality of timelessness, for plant systematics is an accretionary discipline and not one that advances by spectacular discovery or radical re-orientation of concept. Yet notable developments are in train. Some of the long-term projects, like certain of the African floras, are within measurable distance of completion: work on others is still engaging much effort, and is likely to do so for considerable years to come. The newer commitments include further flora-making, among them co-operative projects, like that for the Mascarenes. Yet at the same time the significance of the regional sub-divisions which have for so long set the pattern for the Herbarium botanists is declining, and attention is moving towards the production of detailed monographic studies, some of world-scope.

The advance in taxonomic methodology is also making its impact. A scanning electron microscope will be installed at Kew this year—a relief to many who have existed on the time borrowed from other institutions. The new SEM world of submicroscopic morphology of surfaces is a profitable hunting ground for anatomist and taxonomist alike. Spore and pollen grain studies—already vigorously developing in the mycological and other sections—will receive a fresh impetus; and as the power and range of the instrument is explored, so the taxonomic significance of surface features of somatic organs will become increasingly apparent.

The power of another machine, the computer, is already being sensed. A liaison group of the Scientific Policy Committee has already forged links with the Ministry of Agriculture's Computer Centre, as well as with ARC stations and university departments with computer facilities and expertise. Programmes for multivariate analysis and other statistical procedures are available, and are being exploited by various members of the staff using computer time at the MAFF installation and at sister institutions. Compared with other centres, Kew is late with electronic data processing (EDP), but the prospects for rapid development are now good, and certainly applications exist in plenty.

EDP methods are already in use for handling new accessions through the Cultivated Plants Section, and this model and those available from elsewhere show what can be done. The backlog in the form of 4-5 million specimens presents an intimidating problem, but not an insoluble one were it possible to finance a crash programme for the task of selective data abstraction. To make a feasibility study must be an early aim, and a start has been made to set up the machinery to do so.

Data handling is of course the central preoccupation of the Library, now a separate department after its years of nurture as part of the Herbarium. The wide-ranging service function of the Library is obvious enough, both within and without the Royal Botanic Gardens. The scope of the systematic collection, books and journals, is unmatched in the world, and this largely accounts for the attraction for external visitors from the UK and overseas. Where weaknesses exist, they lie in the newer fields—biochemistry, cell biology and the like. Interestingly, rectifying these is a less formidable task than would be the closing of other gaps, for the very reason that the histories of the disciplines have been shorter. Among the notable new projects largely sponsored by the Library is the new *Kew Record of Taxonomic Literature*, a publication well in the tradition of international service exemplified by *Index Kewensis*.

Kew services of another kind have long been available to the botanical and horticultural worlds through the handling of enquiries, a massive enough operation, formerly dispersed through all departments. For some two centuries time has been gladly given for plant and plant product identification, and for advising in the various fields where expertise has existed in the Gardens. Today, the demand for such service still persists, and the will to give it is still with us. But the urgent pressure of other work against the background of a contracted staff has enforced a change; in the euphemism of the times, a rationalisation. There now exists a unit to handle, screen, deal with or re-direct each of the stream of appeals, requests and outcries reaching the Royal Botanic Gardens. The unit is as yet in its infancy, but it promises well, and its existence should indeed be beneficial to the public—including the international public—in ensuring the more efficient treatment of their submissions, and helpful to Kew staff in eliminating irritating duplication of effort and the nagging distractions of what has often been a system of instant access for crank and scholar alike.

A record of current developments would not be complete without a few reflections on the role of Kew in horticultural training. The Diploma Course is healthy, with an intake of students as able, enthusiastic—and independent-minded—as ever. Yet the national context in which it is set is changing. Botanic gardens type courses have been dropping out; now only Kew and Edinburgh remain. At the same time, new qualifications are becoming available at the Colleges, qualifications which in some senses could be regarded as competitive. The challenge here is to assert a special identity: to produce a course with a flavour singularly “Kew”, and which will continue to justify the wide respect Kew train-

ing enjoys. The secret is, of course, to compound a course programme that will effectively exploit the special advantages of the Royal Botanic Gardens—in particular, the range of material grown, the diversity of horticultural techniques employed, and the skills and knowledge of the staff, internal and external, available to participate. To take up all that this could mean, would require another article. Sufficient to say that the course is evolving, and the new needs undoubtedly will be met.

In the foregoing I have traced some of the current developments at Kew and extrapolated them a little way into the future. What of the more remote prospects? Some of the possibilities are beginning to shape themselves, and one may tentatively reach out to point to them, knowing at the same time the many uncertainties that attend prophecy when national expenditures are involved.

First, there is "public" Kew. Already we are host to well over a million visitors a year, and Wakehurst is now adding its quota. We do much for them, but could do much more. As the greenness of Britain is progressively eroded, so must attractions of our small oases increase; and we should surely aim to improve them, and extend them over a wider season. It is well over a century since a worthy new display building was built at Kew, the Australian House aside. Some of those built then were revolutionary in concept and execution; and there is still time to add twentieth century counterparts. With modern materials, new constructional techniques and state-of-the-art environmental engineering, the Palm House could be surpassed in function and perhaps even matched in majesty. The prospect for increasing the range of contrived environments is exciting indeed: arctic houses, true desert houses, photo-periodic houses, modifying—even reversing—the march of the seasons, are all within the range of practicality.

Second, there is the Kew of the scientist. The traditional functions of the Herbarium stretch as far ahead as one can see. The primary survey of the plant kingdom is not yet complete; nor is the task of flora making. Yet the transition to more detailed monographic studies, already mentioned, marks a step further towards what W. B. Turrill, one-time Keeper of the Herbarium, used to call "omega" taxonomy. Beyond this, a shift from the description of variation towards the study of its sources and causes, and of its adaptive and evolutionary significance, is certain to take place in various groups—as indeed was anticipated in the work of Turrill himself. There is nevertheless a difficulty of reconciliation. Much of what has been written optimistically about the importance of "experimental taxonomy", even about the likelihood of an experimental take-over, has ignored the brute fact that the results of experimental study are often not readily assimilated into every-day, nomenclatural taxonomy, and that this is not simply due to the wrong-headedness of practising taxonomists. In this sense, Turrill's ultimate omega may be chimaerical. Yet the challenge is there to see what can be done, and it will undoubtedly be taken up. What we may see is the growth of intensive experimental researches on certain groups alongside the more traditional work; and it will be in no way at variance with the

historical background of Kew botany if the selection of groups is based at least in some degree on economic considerations.

The last emphasises another major need for the future : the desirability of building up the British stake in plant genetic resources in general. Conservation policy for the Royal Botanic Gardens has been touched upon above. But, beyond our walls, one foresees the need for a very much more active national policy in the near future, affecting plants of economic, amenity and scientific importance of all groups. The British are rather good at growing things ; but there is a haphazardness about how we go about it, symptomatic, no doubt of a trait of national character. For the country as a whole, most horticulturalists and botanists would agree that we should aim at the greatest possible range in the living stocks held. Co-ordination, at least for the publicly owned collections, would make some contribution to optimising the ratio of effort to diversity. The need extends further, however, for it requires the commitment of more resources to this facet of national planning. In Europe, "gene banks", at present principally concerned with the husbanding of genotypes of cultivated species and their wild relatives, have been set up in Turkey, Italy and Germany, and are pending in other countries. Britain is as yet a non-starter in this particular field, but it is impossible to believe that we will reach the end of the century without some national recognition of the need to hold our own substantial stocks of important genera, and contribute thus to conserving their worldwide variability as human pressure on the plant kingdom increases. It is equally improbable that a national gene bank should be set up without major participation by Kew, all the more so since the Seed Bank would be likely to be a vital complementary adjunct for any such operation.

Plant husbandry, like taxonomy, is a natural area of development for the Royal Botanic Gardens ; but among the collection of disciplines associated with the name "Jodrell" some may seem less obviously at home at Kew than others. One is occasionally asked—particularly when importuning for funds—what is the justification for plant physiology, genetics, biochemistry, or whatever, in the Royal Botanic Gardens ? Surely university departments, ARC stations—even other laboratories of MAFF—are better placed in staff, equipment and intellectual orientation for most of these fields ? Of course, the argument is good enough for a great many kinds of experimental botany. It would be difficult indeed to justify an expensive line of research in some esoteric corner of respiratory or photosynthetic metabolism, for example, were the instrumentation to be the heart of the project, and the plant material a few flats of pea seedlings. Yet the case is totally different when studies on a *comparative* basis are brought into account. There is almost a need for new terms to set out the special opportunities for laboratory work at Kew—such as "taxonomic physiology", to match the existing "systematic anatomy" and "biochemical taxonomy". For of course the unique asset is the unmatched range of the living collections. Set among the 20-25,000 or so taxa in the gardens and houses, a physiologist may well be intimidated by the awesome diversity, and long for the

haven of his pea seedlings ; but he of the apt frame of mind will recognise the potential of the collections, and the opportunities they offer for testing the universality of principles and for tracing the threads of concordance and discordance. For the fact of the matter is that plant physiology has been founded upon far too narrow a range of experimental organisms, and one that has even contracted since the days of Haberlandt. Because hitherto generalisation of many accepted principles has depended upon text-book extrapolation, not upon experiment, comparative studies should now be of the essence. Not, of course, that the Royal Botanic Gardens do not exist to offer the material that may be needed by other institutions for just this purpose, nor that it is reasonable to expect that more than a tiny fraction of the physiological, biochemical and chemical work on the plant kingdom now lying ahead of us could be accommodated here. But that some *can* be done—and uniquely well—at Kew is the justification for ensuring that the laboratories are adequately housed and sustained, and given the prospect for long-term growth consonant with the central importance of the plant sciences for man.

J. HESLOP-HARRISON.

THE PRESENTATION PICTURE BY MARY GRIERSON

On the occasion of the retirement of Sir George Taylor as Director, a picture painted by Mary Grierson (Kew's Official Artist) was presented on behalf of the staff.

In response to our request Miss Grierson kindly supplied this account of her picture :—

“ Early in 1971 it was decided to present Sir George Taylor with a painting of the Queen's Garden on his retirement as Director, and I was asked by the Keeper of the Herbarium if I would be prepared to undertake this task.

“ The Garden, having been designed and constructed in the style of the 18th century, the first step was to produce a perspective drawing in the manner of the period. Several sketches were worked out each with a different treatment, but finally a return was made to my original idea of viewing the whole garden as from a helicopter hovering over the river with Kew Palace in the middle distance. Finding a suitably coloured background on which to do the work was the first obstacle, but that was overcome by dipping a sheet of Whatman Paper in a dye to give it the colour of old parchment and of a quiet shade to take the detailed drawing which was to be done in brown inks.

“ Several visits to the Garden were necessary to check on such things as the correct number of loops in the Laburnum Arch—the right number of trees along the pleached Hornbeam Walk and to make sketches of the different ornaments featured in the layout. The perspective drawing was then enclosed by a Plane tree on the right hand side and by *Ailanthus altissima* on the left, both of which grow round the Garden, while the foreground was framed with life-sized paintings of some of the 18th century flowers which have been planted in the flower beds. The painting was done in late February when the only two plants in flower at that time were *Primula auricula* and *Vinca minor*—their colour and form working in well with the whole scheme. To pull the whole framework together a scroll was woven through the plants in the foreground on which the inscription ‘ THE QUEEN'S GARDEN AT KEW ’ was executed in raised gold lettering. Thanks are due to Peter Blackman, a member of the Society of Scribes and Illuminators, for this beautiful work, who also touched up the drawings of the rotunda and the gazebo in gold powder. A suitably worded panel was drawn up and placed on the back of the picture after it was framed, to commemorate the occasion.”

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In response to our request Miss Grierson kindly supplied this account of her picture :—

“ Early in 1971 it was decided to present Sir George Taylor with a painting of the Queen's Garden on his retirement as Director, and I was asked by the Keeper of the Herbarium if I would be prepared to undertake this task.

“ The Garden, having been designed and constructed in the style of the 18th century, the first step was to produce a perspective drawing in the manner of the period. Several sketches were worked out each with a different treatment, but finally a return was made to my original idea of viewing the whole garden as from a helicopter hovering over the river with Kew Palace in the middle distance. Finding a suitably coloured background on which to do the work was the first obstacle, but that was overcome by dipping a sheet of Whatman Paper in a dye to give it the colour of old parchment and of a quiet shade to take the detailed drawing which was to be done in brown inks.

“ Several visits to the Garden were necessary to check on such things as the correct number of loops in the Laburnum Arch—the right number of trees along the pleached Hornbeam Walk and to make sketches of the different ornaments featured in the layout. The perspective drawing was then enclosed by a Plane tree on the right hand side and by *Ailanthus altissima* on the left, both of which grow round the Garden, while the foreground was framed with life-sized paintings of some of the 18th century flowers which have been planted in the flower beds. The painting was done in late February when the only two plants in flower at that time were *Primula auricula* and *Vinca minor*—their colour and form working in well with the whole scheme. To pull the whole framework together a scroll was woven through the plants in the foreground on which the inscription ‘ THE QUEEN'S GARDEN AT KEW ’ was executed in raised gold lettering. Thanks are due to Peter Blackman, a member of the Society of Scribes and Illuminators, for this beautiful work, who also touched up the drawings of the rotunda and the gazebo in gold powder. A suitably worded panel was drawn up and placed on the back of the picture after it was framed, to commemorate the occasion.”

—left along main road to the Main Gate, Bushy Park—into Park to inside the gate (map ref. 160704).

3rd stage (2.95 miles). Through Bushy Park—round Diana Fountain to far exit—right on A309—on to Lamb and Star Hotel (map ref. 151664).

4th stage (2.65 miles). Along A309 to roundabout—sharp right to A3—along A3, through Esher to West End Lane (map ref. 128632).

5th stage (2.95 miles). Follow A3 to Cobham—Pains Hill AA box (map ref. 095606).

6th stage (2.75 miles). Along A3 to Wisley turning (map ref. 063575)—right to finish at gate lodge, R.H.S. Gardens.

Wisley-Kew (even years) the above route in reverse.

By 1966, eight teams were regularly taking part in the race. The increase in traffic volume on the A.3 made it necessary to find an alternative route which basically is the same as that used today, the difference being in the first/last leg, where the elimination of the A3 from Seven Hills Road to Wisley was introduced in 1969.

The present route is the longest used since the introduction of the race, and is some 19.2 miles long.

1st stage (4.1 miles). R.H.S. Gardens, Wisley—through village, right on to sewer farm—along Sanway Road—right into Church Road at Brewery Road—turn right into High Road—cross road with A425—right and along A425—left into Seven Hills Road (A365).

2nd stage (3.2 miles). Past lights to driveway “Joynings”—straight on B365—right at junction of A317—along this to Ashley Road—left over Sir Richards Bridge—across junction up Ashley Road.

3rd stage (2.8 miles). Just before railway bridge—B308 Sheers Pub—Sunbury Clock Tower—Hanworth Road A305—past Jobs Dairy to the Langford River Bridge.

4th stage (2.9 miles). Over river bridge—past Apex House—second left at Roundabout, Chertsey Road A316—round roundabout continue on A316.

5th stage (3.1 miles). Sign for junction of A310 and A316—along A316 passing two more roundabouts—over Twickenham Bridge to roundabout—left on to Kew Road A307—to traffic lights—left on to Kew Green (Finish).

WINNERS OF THE RACE SINCE INTRODUCTION IN 1951
(on even years the race finishes at Kew, on odd years at Wisley)

1951 KEW. Number of teams 2; overall time, 1 hr. 38 min. 20 sec.

Kew runners: P. Huggett, L. Carn, P. Nutt and G. Fuller.

- 1952 KEW. Number of teams 3 ; overall time, 1 hr. 39 min. (Introduction of six runners.)
Kew runners : P. Nutt, G. Collins, P. Tucker, L. Carn, C. Weighill and G. Fuller.
- 1953 KEW. Number of teams 3 ; overall time 1 hr. 37 min. 12.25 sec.
Kew runners : E. Baverstock, G. Watson, L. Pemberton, J. Hayworth, E. Worraker and G. Fuller.
- 1954 KEW. Number of teams 3; overall time, 1 hr. 30 min. 43 sec.
Kew runners : R. Hoyte, C. Collins, E. Baverstock, L. Pembert, C. Powell and G. Watson.
- 1955 WISLEY. Number of teams 4 ; overall time, not recorded. Kew second.
Kew runners : R. Hoyte, T. Miller, R. Millard, C. Bayliss, H. Hind and P. Tucker.
- 1956 KEW. Number of teams 4 ; overall time, 1 hr. 35 min.
Kew runners : H. Hind, A. Ast, G. Messenger, T. Dumont, T. Muller and another runner not recorded.
- 1957 WISLEY. Number of teams 4 ; overall time, 1 hr. 27 min. 53 sec. Kew second.
Kew runners : M. Collett, R. Thomas, A. Porter, R. Johnson, T. Drummond and H. Overyender.
- 1958* WISLEY. Number of teams 5 ; overall time, 1 hr. 32 min. 18 sec. Kew second.
Kew runners not recorded.
- 1959 WISLEY. Number of teams 9 ; overall time, 1 hr. 34 min. 59 sec. Kew fourth.
Kew runners : R. Adams, D. Mason, M. Lycett, K. Scales, D. Waterman and B. Dodds.
- 1960 WISLEY. Number of teams 7 ; overall time, 1 hr. 34 min. Kew second.
Kew runners : G. Ganny, Low, Mosely, C. Henderson, B. Dodds and J. Elsley.
- 1961 WISLEY. Number of teams 3 ; overall time, 1 hr. 37 min. 56 sec. Kew third.
Kew runners : J. Warrington, D. Tabor, C. Henderson, A. McGeddes, B. Dodds and G. Ganny.
- 1962 WISLEY. Number of teams 6 ; overall time, 1 hr. 36 min. 38 sec. Kew second.
Kew runners : D. Ralston, D. Waddell, J. Gaggini, C. Henderson, D. Morgan and B. Dodds.
- 1963 KEW. Number of teams 9 ; overall time, 1 hr. 33 min. 25 sec.
Kew runners : D. Waddell, D. Ralston, D. Morgan, J. Gaggini, J. Elsley and G. Spate.

- 1964 KEW. Number of teams 6; overall time, 1 hr. 36 min. 49 sec.
Kew runners : A. Keevil, D. Waddell, A. Heron, M. Dodge, G. Spate and J. Elsley.
- 1965 KEW. Number of teams 9; overall time, 1 hr. 32 min. 51 sec.
Kew runners : D. Waddell, D. Coleman, A. Keevil, A. Heron, B. Penberthy and J. Elsley.
- 1966 KEW. Number of teams 8; overall time, 1 hr. 34 min. 51 sec.
Kew runners : C. Graham, A. Keevil, A. Rich, B. Penberthy, D. Coleman and A. Heron.
- 1967* KEW. Number of teams 8; overall time, 1 hr. 44 min. 25 sec.
Kew runners : D. Coleman, C. Iles, P. Styles, A. Rich, M. Shorey and B. Penberthy.
- 1968 KEW. Number of teams 11; overall time, 1 hr. 43 min. 38 secs.
Kew runners : R. Johnson, M. Holloway, C. Iles, P. Styles, P. Boys and B. Roby.
- 1969* WISLEY. Number of teams 12; overall time, 1 hr. 53 min. 53 secs. Kew second.
Kew runners : S. Moore, A. Harvey, P. Styles, R. Johnson, B. Roby and M. Holloway.
- 1970 KEW. Number of teams 12; overall time, 1 hr. 51 min. 41 sec.
Kew runners : M. Holloway, B. Roby, J. Harris, R. Bletsoe, R. Johnson and I. Manders.

Established Records.

Kew-Wisley, 1952-1957 :

Team record—Wisley, 1 hr. 27 min. 53 sec., 1957.

Wisley-Kew, 1952-1957 :

Team record—Kew, 1 hr. 30 min. 43 sec., 1954.

There are no records of individual lap timings available for this period.

Records, 1958-1965

Kew-Wisley :

Team record 1965, Kew, 92 min. 51 sec.

Lap records : —

1. Wisley, 1963, J. Atkinson, 16 min. 45 sec.
2. Kew, 1963, D. Ralston, 15 min. 40 sec.
3. Kew, 1963, D. Morgan, 15 min. 16 sec.
4. Wisley, 1965, R. Dawson, 13 min. 20 sec.
5. Kew, 1965, B. Penberthy, 13 min. 46 sec.
6. Kew, 1965, J. Elsley, 14 min, 22 sec.

Wisley-Kew :

Team record 1958, Wisley, 92 min, 18 sec.

Lap records :

1. Oaklands, 1962, 14 min. 17 sec.
2. Wisley, 1958, P. Weatherden, 15 min. 4 sec.
3. Kew, 1966, A. Rich, 13 min. 57 sec.
4. Kew, 1966, B. Penberthy, 14 min. 22 sec.
5. Kew, 1960, B. Dodds, 15 min. 7 sec.
6. Wisley, 1958, E. Hunt, 15 min. 28 sec.

*Records 1967-1970**1967 Kew-Wisley :*

Team record, Kew, 104 min, 45 sec.

6th lap record, Kew, 17 min, 33 sec.

1969 :

6th lap changed ; team record, Wisley, 113 min. 53 sec.

1. Pershore, 1969, 17 min. 47 sec.
2. Wisley, 1967, 16 min. 1 sec.
3. Wisley, 1969, 18 min. 26 sec.
4. Wisbech, 1969, 14 min. 56 sec.
5. Kew, 1967, 15 min. 46 sec.
6. Kew Guild, 1969, 22 min. 27 sec.

1968 Wisley-Kew

Team record, Kew, 1 hr. 43 min. 40 sec.

1st lap record, Wisley, 16 min. 32 sec.

1970

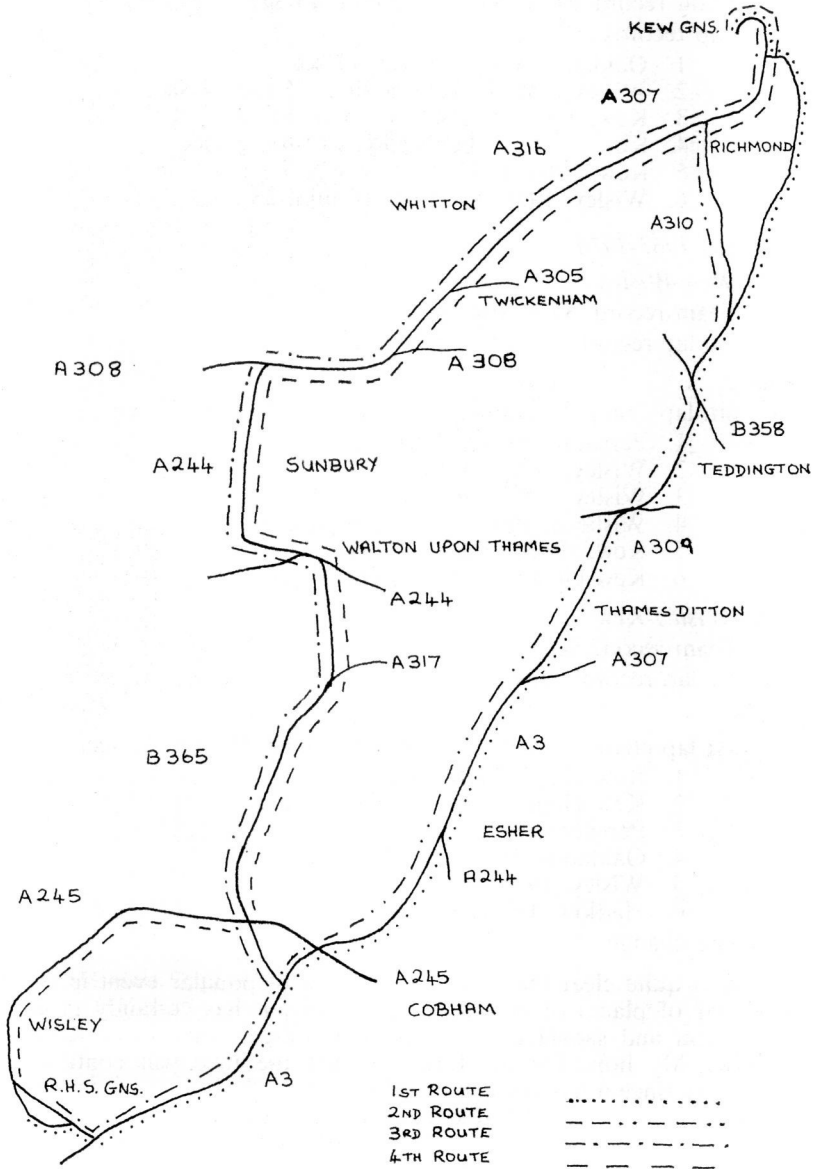
1st lap changed ; team record, Kew, 1 hr. 51 min. 41 sec.

1. Kew Guild, 1970, 21 min. 21 sec.
2. Kew Guild, 1968, 16 min. 14 sec.
3. Pershore, 1970, 14 min. 0 sec.
4. Oaklands, 1968, 15 min. 37 sec.
5. Wisley, 1970, 16 min. 24 sec.
6. Hadlow, 1970, 16 min. 22 sec.

* Route change.

It is quite clear that the race is the most popular event in the calendar of places of horticultural training, it has certainly given enjoyment and satisfaction to past and present students of Kew/Wisley. My hope for the future is that the race will continue, especially since it has become established over the past two decades, however with increased traffic and road construction it is becoming more difficult to obtain police permission to run the event, though every effort will be made to ensure a future for the KEW-WISLEY RACE.

R. BLETSON, *Athletics Secretary*, 1969-70.



THE KEW-WISLEY ROAD RACE

IN MEMORIAM

GERALD ATKINSON

Gerald Atkinson, who died on 1st July, 1971, was, for 37 years, official artist and photographer at Kew. Born on 26th August, 1893, at Kingston-upon-Hull, he showed early artistic promise while a pupil at the Boulevard Secondary School and, in fact, designed the school badge. His talent for artistic expression was probably inherited from his father, W. J. Atkinson, who was a well known Yorkshire painter of inn signs. After a period as pupil teacher at his old school, Atkinson joined the Army on the outbreak of the first World War and after demobilisation spent four years at the Hull School of Art. This training must have stood him



in good stead since his application for the post at Kew secured him the appointment, according to the local press, from among 2,000 applicants.

At Kew, he was obliged to work in very cramped surroundings in a small room in the old Jodrell Laboratory which functioned both as a photographic and an artist's studio. Leading from it was a small dark-room in which photographic processing could be carried out. Unfortunately, this room was infested with cockroaches which were a familiar pest in many of the Houses in the Gardens, and which travelled along the hot water system.

In the late thirties a fine new studio was built at the eastern end of the Laboratory, a lofty room, well lighted from all sides including skylights. It was an ideal setting for photography as well as for drawing and painting and it was a tragedy when it disappeared at the demolition of the old laboratory since no such lavish accommodation is now available

Atkinson was engaged both as artist and photographer, an unusual combination since the two forms of expression frequently come into conflict. However, the challenge was accepted and his photographic technique was always of a high standard. Much of this work consisted in photographing herbarium specimens with an occasional living plant to vary the monotony. His equipment was minimal and distinctly old-fashioned. Nevertheless, they proved adequate.

The art side of his work consisted, first of all, in preparing drawings for Hooker's *Icones Plantarum*. These were reproduced by the lithographic process in his early days though, after 1927, the much simpler "line" method was adopted. He was involved also in illustrating articles in the *Kew Bulletin* with plant dissections, maps, diagrams and in various other ways. Very little work in colour was demanded of him although he executed a few colour plates for the *Botanical Magazine* in his own time. Atkinson collaborated very fully with the late E. M. Marsden-Jones and W. B. Turrill in the preparation of their joint works, *British Knapweeds* (1934) and *The Bladder Campions* (1957). He not only prepared colour plates and numerous drawings of floral details but was responsible for many photographs reproduced in these works. Many of these were taken at the Transplant Experimental Station at Potterne in Dorset. The Kew badge which was in use from 1925 to 1935 was also designed by Atkinson.

It was natural, perhaps, that he found the photographic side of his work increasingly irksome, not to say frustrating, and to satisfy his artistic urge he spent a great deal of his own time in producing oil paintings of floral subjects and occasional portraits. He had a penchant for large canvases and in his student days designed and executed a large mural which was 20 feet in length. At his house at Heston the walls of one room were covered in colourful scenes from some of the lesser known stories from the *Arabian Nights*.

During the 1939-1945 war Atkinson was in charge of one of the Herbarium fire-fighting squads and on one occasion during a particularly heavy air-raid his squad succeeded in putting out a fire on the top floor of the house at the corner of Ferry Lane alongside the Herbarium. Unfortunately, on the same night, a fire bomb landed on his car nearby and burnt it out.

For one of his temperament he was extremely practical. In the late 20's when "wireless" was still something of a novelty, he spent much of his spare time in constructing receiving sets and continued to do so for some years. He also took a keen interest in the theoretical side of the subject.

For his work in botanical illustration The Linnean Society of London conferred on him in 1955 the distinction of Honorary Associateship (A.L.S.). One should mention that this signal honour is held by only 25 individuals at any one time.

Atkinson was very much attached to Kew and indeed, when he went to Cornwall on his retirement he named his new home "Kew Cottage". He will be greatly missed by his personal friends and especially for his very entertaining letters. He never forgot a birthday and scorned the use of traditional type of birthday card. He was generous to a fault and his courtesy and kindness will be remembered by all who met him. We extend our sincere sympathies to his wife and his son and daughter.

F. BALLARD.

G. BATES

We regret to record the death of George Bates on 16th May, 1971, one month before his 91st birthday. George, who was born at Thundridge, Ware, Hertfordshire, commenced his career in the gardens of Pales Park, Ware. He moved later to May's Nurseries, Edmon-ton, and to Mereworth Castle Gardens, Kent, before entering Kew as a student in 1902. He left Kew in 1904, with his Kew Certificate signed by the great William Watson. His first appointment was as head gardener at Tatherton Hall, Yorkshire, and it was here that he married, his wife dying in 1953. George moved in 1908 to Digswell House, Welwyn, Herts, as head gardener and estate manager



In 1913 he established a partnership with the late Mr. Willis, Horticultural Sundriesman, Harpenden, Herts. They started a carnation nursery at Sawbridgeworth, Herts, being joined later by Mr. Keith Buseford, but the partnership was dissolved in 1919. Bates was successively manager of nurseries at Winchmore Hill, Walthamstow and Westerham in Kent.

In 1930 he returned to private estate gardening as head at Little Squirreys, Kent, moving in 1935 to Boreham Wood, Herts. Finally he moved to Mark Young, Sandy, Bedfordshire. In 1949, after fifty years in horticulture he retired to his native Thundridge, Ware, Herts.

I first met George at Radlett about 1935, and we soon became firm friends. With his old friend and colleague, the late Jim Simmons, we attended many R.H.S. meetings and shows. Possessed of a profound knowledge of plants, he was deservedly noted as an outstanding plantsman. An erudite and charming conversationalist, I spent many happy hours in his company and during the last few years have carried messages of good will, etc., between him and his old Kewite contemporary, Mr. E. Brown, father of our present Editor of the *Journal*.

George will be sadly missed. To his only son and three grandchildren we express our sincere sympathy.

CYRIL JONES (1923).

W. H. BROMLEY

We regret to record the death of William Hugh Bromley on the 22nd April, 1971. He died at his home in Saundersfoot at the age of 67 after some years of indifferent health and several major operations. In spite of these adversities, his quality of cheerfulness and his rich sense of humour, appreciated by his many friends, remained unimpaired.

He was born on the 21st June, 1903, at Eggington, Derbyshire, where his father was agent to Sir Edward Every, and was educated at Oakham School. He left Kew in 1927 and joined the staff of Dickson's Nurseries, Chester. After a few years of fruit farming in Australia he returned to serve



as land agent to several large estates in this country. Later he set up business on his own as a landscape architect. Amongst the many who sought his advice was Sir Winston Churchill, whom he visited on numerous occasions at Chartwell. Unfortunately the last war necessitated the closing down of this business.

In 1946 he joined Plant Protection as a consultant in turf maintenance on various types of sports grounds, his territory being mainly in the Midlands. In 1953 he moved to South Wales where he advised farmers and nurserymen on fertilisers and crop spraying. As an example of his sense of humour he once wrote in a county survey—"the greatest crop for many miles in South Wales is caravans".

Because of his vast knowledge in all these matters and his cheerful yet forthright way of imparting it, he was very much respected and beloved by those he advised. Fortunately this knowledge has not died with him for he was a regular contributor to the press and journals concerned with these matters.

Bromley retired in 1962 and continued to live in South Wales. His garden was a great joy and he was a great lover of nature in all its forms. Photography, which he had found most useful in his profession, now became his chief hobby, with a large collection of slides on British flora and birds, a pleasing result. He also found time to serve on a number of public bodies. His varied knowledge and sound common sense made him a valued member, while his abhorrence of cant, humbug and inefficiency, which he was never backward in castigating in no un-

certain terms, helped materially to keep them on the "straight and narrow".

His wife Margaret, family and many friends in all strata of society miss him sorely.

H. H. DAVIDSON (a relative).

F. W. THORNS

Frank William Thorns died on 19th July, 1971, at the age of 67. He retired as Durban's Director of Parks, Recreation and Beaches in 1968, a position which he held for 20 years. He was known as Durban's "Man with Green Fingers".

Frank's gardening career commenced when he left school at the age of 14 and trained on private estates in Sussex. He entered Kew in 1926 and often spoke nostalgically of the old T-range days. Frank and I shared the same "digs" at Kew and have been in touch through the years.

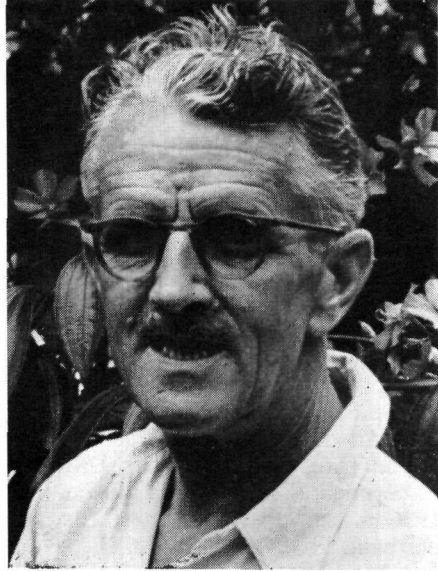
He left Kew for the Sudan in 1928, but the life and climate did not appeal to him and he joined us in South Africa two years later. Serving in the Parks Department in Durban as Curator of the Botanic Gardens from 1931 to 1936, Frank applied for and obtained the position of Curator of the National Botanic Gardens at Kirstenbosch. There he was responsible for the major alterations and additions to the Gardens. His return to Durban as Director of Parks was made in 1947 and during his period of service it became one of the most important Departments in the Republic.

Frank was a botanist with a wide knowledge of the South Africa flora. He was a Past President of the Institute of Park Administration (S.A.) and until his retirement was Chairman of the Natal branch of the Institute. On his retirement he was presented with an illuminated address by the City Council of Durban.

Whilst at Kirstenbosch Frank met and married Eve, his wife. Their son, John, is an architect and a talented pianist, while their daughter, Eileen, is at present on a study tour in Great Britain. We offer our very sincere sympathies.

WALTER EVERITT (1928).

An appreciation sent in by James Robbie (1927)—"I am sure there will be tributes to him by those who knew his contribution to horticulture in South Africa. Sadly my wife and I add ours for his comradeship and work in the Sudan during the early 30's".



W. C. SCOTT

William Carrick Scott died on April 1st, 1971. He was born on May 15th, 1896 and served his early years in large private gardens in Wark and Harperly. He served in H.M. Forces from 1914 to 1919 and during this period was severely wounded, losing an eye. Upon his return to civilian life he became foreman on Capt. Atkinson's estate at Gallow Hill Hall, Morpeth, under Mr. H. Wright.

He entered Kew as a student in 1920 and left in 1922, having gained the Kew Certificate. His first post, head gardener to Sir William Phene Neal at Cambridge he held until 1923, when he held a similar position to the Earl of Aylesford at Packington Hall, Coventry. In 1928 he joined the staff at the Horticultural Experimental Station at Honghall, Co. Durham as foreman and left in 1936 to set up a poultry farm and market garden at Pensgaw, Co. Durham.



Wartime restrictions caused the closure of this venture in 1942, when he joined Messrs. Trimpell, a wartime consortium as head gardener at Middleton, Morecambe, Lancs. His task was to set up and to maintain a garden produce section for their canteens, etc. Upon the cessation of hostilities the section was closed and he became head gardener to the Red Cross on the estate of Sir Rhys Williams. In 1950 he became head gardener to Dr. Newington at a private mental home in Sussex. He retired in 1963 after a happy and varied career. He was a quiet and unassuming man, happy in his chosen profession.

He is survived by his widow Lilian to whom we offer our sincere sympathies.

R. SUDELL

Richard Sudell, the Landscape Architect, died suddenly on November 18th, 1968. He died from a heart attack in Kuwait when he was on his way to Australia with his wife Ida, to visit a daughter. Sudell left Kew after studentship in 1915 and steadily built up a reputation in garden design. In 1927, in the design tent at Chelsea Show, a number of designers including Sudell decided to initiate a British Institute of Landscape Architects. Richard was the first Chairman and Thomas Mawson the first President, when the I.L.A. was formed two years

later. From his office he published in association with the I.L.A., *Landscape and Garden*, a journal which was recognised on an international scale. Unfortunately this was killed by the war, but during this troubled period he was deeply involved with organisations encouraging food production. Sudell became President of the I.L.A. in 1955.

Among the books which he wrote were *Herbaceous Borders*, *Practical Gardening in Pictures*, *Sports Buildings and Playing Fields* and his famous *Garden Design*.

The following words were written by one who worked with him for many years—"He had many trainees learning and practising in his office from various parts of the world, and he was continuously encouraging the future landscape architects. He often arranged tree planting schemes for children in new public parks. Richard was a great lover of flowers and generally sported a rose buttonhole, and always had flowers in his offices. He was a born optimist and was always eager to experiment and to spend money on new projects. During his last year he was trying out prototypes of new ideas in play equipment designed by his assistant. On his staff he had architects who specialised in sports centres and sports pavilions. He was a great believer in roof gardens and in the creation of gardens in difficult situations. One of his best roof gardens was created for Messrs. Lewis, a departmental store at Bristol. His creation of the public garden and bowling green in Finsbury Square over a large underground car park was one of the first of its kind in London."

Like so many Kewites, Sudell was a great and successful pioneer. We offer our sincere sympathies to his wife and daughter.

MRS. MOLLIE LONGMAN (née Sillitoe)

With sorrow we record the death of Mollie in a car accident just outside Brighton on the evening of 22nd October. Mollie worked at Kew for 23 years as a copy typist before retiring in 1970. For many years she was in the Curator's office where she worked with Miss Audrey Barton (who is now retired) for Mr. Campbell, the Curator. Her father, F. S. Sillitoe, M.B.E., was Guild President in 1931 (*K.G.J.*, Vol. V, No. XXXVIII, 1931).

Our sympathies go out to the relatives and to her husband who also worked at Kew, and who was injured, but not too seriously.

PROFESSOR HENRY L. R. CHAPMAN

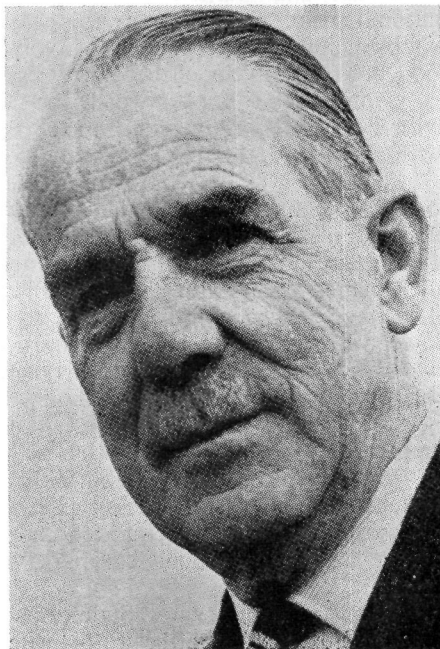
Professor Chapman, 78, of East Lancing, died in early December, 1968. He left Kew after studentship in July, 1919, and became horticulturist to the Egyptian Government. In 1926, Chapman became botanist in charge of the Beal Botanic Garden at Msu. From 1957 to 1960 he took part in the Co-operative Extension Service at Msu, where he was widely accepted as a horticultural specialist.

We extend our sympathy to his wife, Rosent and to his son and daughter.

W. CORBETT

Wilfred Corbett died very suddenly on the 15th February, aged 69. Wilfred received his early training in horticulture in a private garden at Mulgrove Castle, near Whitby and in Manchester Parks Department. He entered Kew as a student in 1923 and spent most of the following two years in charge of No. 4 House, the Assistant Curator being "Jock" Coutts.

After leaving Kew he joined the staff of the Experimental and Research Station at Ches-hunt in Hertfordshire in 1925. Here he was assistant to the Director, Dr. W. F. Bewley, acting as Liaison Officer and one of the first Advisory Officers until 1931. Research and investigational work in conjunction with Dr. Bewley during this period covered a wide field, including the production of glasshouse crops and related plant physiology and pathology. He published a number of scientific papers in such journals as *The Annals of Applied Biology*, the *Journal of Pomology and Horticultural Science* and *Scientific Horticulture* and the *Journal of the Horticultural Education Association*. He was an active member of the H.E.A.



In 1931 Corbett was appointed Kent County Advisory Officer in market gardening and glasshouse work. In 1935 he was asked to take charge of the County Demonstration Glasshouse Station at Puddledock Lane, Hextable, near Swanley. As a member of the Territorial Army Wilfred Corbett was called up for service in August, 1939, but was released for work on food production before the end of that year to be seconded to the Kent War Agricultural Executive Committee. Thus he was responsible for advice and practical demonstrations, covering all aspects of glasshouse and outdoor food crop production, and for organising a short training course for members of the Women's Land Army, who attended the closely associated Swanley Horticultural College.

In 1946, following the amalgamation of the Swanley Horticultural College for Women with the South Eastern Agricultural College at Wye, Corbett became the first and only Principal of the Kent Horticultural Institute at Swanley. For the first three years the new Institute was used

as a training centre in horticulture for ex-servicemen under the supervision of the Ministry of Agriculture. The Kent Education Committee took possession in September, 1949, and until 1958 the Institute was run on parallel lines to the Kent Farm Institute at Sittingbourne where they specialised on fruit and agriculture.

It was then that yet another change took place, the Farm and Horticultural Institute being united under one name. With the appointment of an agricultural Principal to head the new Institute, Wilfred Corbett took charge of all extra mural horticultural education in Kent, a position he held until his retirement in 1966. In 1967 the horticultural department moved to the new site at Hadlow and together with the agricultural department, became the new Hadlow College of Agriculture and Horticulture.

Corbett was at one time a Director of a large nursery in Swanley, world renowned for pot plant production. The site occupied by this once famous nursery near Swanley Junction is now covered by a large building development. Because of his specialised knowledge of glasshouse production, his advice was greatly sought by growers throughout the country. He was responsible for drafting the text of the second edition of the Ministry of Agriculture's Bulletin on Pot Plants, published in 1958. A keen golfer, Wilfred Corbett was for many years, a member of Dartford Golf Club, where he served both as Captain and also on the Committee. His other leisure-time activities included philately, especially first-day covers. He was, in addition, an active member of the Dartford Group Hospital Management Committee. In 1968 he and his wife moved up to Quorn in Leicestershire where he established a most attractive garden around their new bungalow. He continued his interest in horticulture through the membership of the Alpine Garden Society.

Wilfred Corbett will be sadly missed by his many friends, former colleagues and associates, too numerous to mention, to say nothing of the many students who passed through the Institute during his period of Principalship. We express our sincere sympathies to his wife.

(As a member of the staff at Swanley, Wilfred and I often chatted about Kew. Often in more recent years, we spoke of writing an account of the long association which Swanley has had with Kew over the years, for the *Journal*. This is still a worthwhile venture—please send in any information which you have to help. Editor.)

MAJOR H. B. SHARPE

Major Sharpe died several years ago in Kenya. He left Kew in 1913. Dr. P. J. Greenway (President 1970/71) wrote: "He was known to the horticultural community in Kenya as 'Old Sharpe' and had a wonderful reputation as a gardener and plantsman. To whatever station he was posted in the course of duty, he proceeded to make a garden whatever the climatic conditions he had to contend with".

G. GROUT

George Grout died on 3rd March, 1970, at Chipata (formerly Fort Jameson), Zambia. He was born at Waterlooville, Hampshire, on 6th August, 1889. He was at Kew from April, 1910, until September, 1914, when he joined the King's Royal Rifles. After being wounded in France in 1917 and following repatriation, George Grout joined the Royal Flying Corps. A further period of 1½ years at Kew followed demobilisation early in 1919.



Towards the end of 1910 Grout went out to Northern Rhodesia with his wife, whom he married in 1919. He started as Farm Manager for the North Charterland Exploration Company, who had tobacco farms in the Eastern Province. In 1928 he opened up his own farm in the Fort Jameson District and he continued farming until 1964. This farm was recognised as the showpiece of the District, all the fields being laid out according to sound conservation methods. He did not believe in "mining" the land, but farmed to improve it.

His son Gordon writes—"When hard times hit the district and tobacco didn't pay I joined the Forest Department of the Government. The farm is now up for sale". We express our sympathies to Gordon.

E. J. SMITH

We regret that E. J. Smith died on the 4th November after spending nearly two years in hospital following a stroke. He was aged 83, born on 21st April, 1888. Smith left Kew in 1920 and spent a short period in coffee plantations before employment with the Public Works Department, in Uganda. He retired to this country in 1946.

We send our sincere sympathies to his widow, Mrs. Margaret Smith.

We also regret to announce the deaths of the following : —

Miss M. G. Aikman (1924), who died several years ago.

R. A. Badgery (1906), who died peacefully at the age of 96 years in March, 1970. We extend sympathies to his daughter, Mrs. M. Waldren.

W. J. M. Cunningham (1921), who died in Canada—date unknown.

L. W. Gardner, who left Kew in 1913, died in 1966 or 1967. He was farming for many years in the Fort Jameson District, N. Rhodesia until his retirement in 1964, when he joined one of his sons on the copper-belt of Zambia.

Miss Nancy Grant (1917) who died on 21st September 1969.

Harry Ruck, who was Storeman at Kew for so many years, and was known to several generations of Kewites, died on 13th December, 1968.

Miss Irene Sanders, who cultivated the model allotments and gardens by the Orangery during the last World War, died in her sleep on the 13th September, 1970.

Miss N. Wiltshire (1919) who died in September, 1967.

H. F. Riebe (1906) in the words of his daughter—"He died on 19th April, 1968, after a long illness. However, up to the very end he never ceased to enjoy news from Kew.

G. A. Billström (1929) who died in March, 1972. (Obituary to appear in the next *Journal*.)

B. W. Harbourne (1923) who died in March, 1967. (Obituary to appear in the next *Journal*.)

S. A. Pearce (1968) who died in March, 1972. (Obituary to appear in the next *Journal*.)

INCOME AND EXPENDITURE ACCOUNT

1970	DEBIT	1971
£		£ £
	To Kew Guild Journal:	
	Printing 1970 Journal (including blocks)	380.50
	Envelopes	5.50
	Postage for Journal	25.75½
		<u>411.75½</u>
426.73	Less Journal Sales	7.82
		403.93½
49.35	To Prizes awarded by the Guild, 1971	28.35
	To Annual General Meeting and Teas:	
	Printing, Postage, Envelopes	17.87½
	Less Loss on Tea25
18.38		<u>18.12½</u>
20.83	To Hon. Officers' Expenses	31.21
14.03	To Benevolent Payments and Wreaths	27.60
31.53	To General Printing, Postage and Stationery	30.39½
31.97	To Typing and Clerical Expenses	23.65
2.86	To Insurance, Bank Charges	1.92
<u>595.68</u>		<u>565.18½</u>
78.48	Income Exceeds Expenditure	274.90
<u>£674.16</u>		<u>£840.08½</u>
4,004.79	Balance as per Balance Sheet	4,289.91½
<u>£4,004.79</u>		<u>£4,289.91½</u>

THE KEW GUILD BALANCE SHEET

1970	LIABILITIES	1971
£		£ £
	Capital Fund:	
4,004.79	As per attached Statement of Assets	4,289.91½
	Current Liabilities:	
	Life Subscribers—	
	68 @ £1.00—half rate	34.00
	80 @ £2.00—half rate	80.00
	75 @ £3.15—half rate	118.12½
	7 @ £5.25	36.75
279.10	15 no record	<u>268.87½</u>
<u>£4,283.89</u>		<u>£4,558.79</u>

FOR THE YEAR ENDED 31st DECEMBER, 1971

1970	CREDIT	1971
£		£
391.35	By Annual Subscriptions and Arrears	463.24½
43.25	By Life Subscriptions and Donations	135.47½
	By Dividends:	
191.94	From Charities Official Investment Fund	195.61
41.59	By Interest from Deposit Account (Barclays Bank) ...	34.91
	By Guild Annual Dinner:	
6.03	Receipts from Sale of Tickets, Less Cost of Dinner, Gratuities, Fees, etc.	10.84½
<u>£674.16</u>		<u>£840.08½</u>
	Balance as at 1st January, 1970	4,004.79
	Reduction of Life Subscription Liabilities	10.22½
	Add Excess of Income over Expenditure	274.90
		<u>285.12½</u>
<u>£4,004.79</u>		<u>£4,289.91½</u>

FOR THE YEAR ENDED 31st DECEMBER, 1971

1970	ASSETS	1971
£		£
	Invested Assets:	
3,100.00	Charities Official Investment Fund (3,155 Shares at Cost)	3,100.00
	Current Assets:	
	Journals: Nominal Value of Stock	89.60
	Guild Emblems (purchase value)	89.25
	Booklet—"Queen's Garden" (purchase value)	19.81
	Christmas Cards (purchase value)	29.80
349.16		<u>228.46</u>
	Cash at Barclays Bank:	
	On Deposit	936.66
	In Current Account	279.87
827.23		<u>1,216.53</u>
7.50	Cash in hand	13.80
<u>£4,283.89</u>		<u>£4,558.79</u>

Audited and found correct,

G. A. PATTISON,
C. M. ERSKINE,

} Hon. Auditors.

27th January, 1972.

KEW STAFF LIST

(31st December, 1971)

† Formerly a Student Gardener. * Life Member.

	<i>Entered Kew</i>
DIRECTOR'S OFFICE	
Director	Professor J. Heslop-Harrison, M.Sc., Ph.D., D.Sc., F.R.S., F.R.S.E., M.R.I.A., F.L.S., F.I.Biol. ... 1971
Senior Personal Secretary.....	Miss M. P. Roberts ... 1970
Deputy Director, Keeper of Herbarium (D.C.S.O.)	J. P. M. Brenan, M.A., B.Sc., F.L.S. 1948
Secretary (Principal)	R. W. King, D.F.C. 1959
Higher Executive Officer.....	E. N. Johnson ... 1969
Executive Officer	W. C. W. Grimes ... 1967
" "	Miss M. R. Axton ... 1967
Clerical Officer	Mrs. H. M. Hyde ... 1966
" "	J. A. Vaughan ... 1966
" "	Mrs. V. O. M. Clark ... 1967
" "	Miss D. I. Gage ... 1970
" "	Mrs. J. Nicholson ... 1969
" "	Mrs. L. G. Williams ... 1971
Clerical Assistant	Mrs. F. L. Upton ... 1964
" "	Miss E. H. Smith ... 1966
" "	Mrs. D. A. McDougal ... 1970
" "	Mrs. C. J. Ballard ... 1970
" "	Mrs. B. Lewis ... 1970
" "	Mrs. S. Tillotson ... 1970
Telephone Operator	Mrs. C. Lansdell ... 1966
" "	Mrs. J. D. Truss ... 1971
Office Keeper	C. D. May ... 1971
HERBARIUM	
Deputy Keeper, S.P.S.O.	P. S. Green, B.Sc., F.L.S. ... 1966
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. ... 1957
" " " "	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. Foreman, B.Sc., F.L.S. ... 1951
" " " "	Miss F. M. Jarrett, M.A., Ph.D., F.L.S. ... 1959
" " " "	C. Jeffrey, B.A. ... 1951
" " " "	D. M. Dring, B.Sc., Ph.D., F.L.S. 1962
" " " "	B. Verdcourt, B.Sc., Ph.D., F.L.S. 1964
" " " "	C. C. Townsend ... 1951
" " " "	R. M. Pollhill, B.A., Ph.D., F.L.S. 1961
Senior Scientific Officer	D. R. Hunt, M.A., A.R.C.O. ... 1961
" " " "	G. Ll. Lucas, B.Sc., F.L.S. ... 1963
" " " "	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. ... 1962
" " " "	W. Marais, B.Sc., M.Sc. ... 1968
" " " "	R. M. Harley, M.A., D.Phil., F.L.S. 1968
" " " "	I. K. Ferguson, B.A., Ph.D., F.L.S. 1968
" " " "	P. G. Taylor, F.L.S. ... 1948

Entered
Kew

Higher Scientific Officer	Miss S. S. Hooper, B.Sc., F.L.S.	1954
" " "	D. Philcox, M.Sc., M.I.Biol., F.L.S.	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
" " "	S. A. Renvoize, B.Sc.	1963
Scientific Officer	Mrs. S. M. Phillips, B.Sc., F.L.S.	
" " "	(Miss King)	1966
" " "	C. Grey-Wilson, B.Sc.	1968
" " "	Miss P. Halliday	1947
" " "	Miss V. A. Carder	1955
" " "	Miss J. Forster	1947
" " "	Miss I. Blewett	1941
" " "	Miss T. A. Bence	1958
Assistant Scientific Officer	Miss V. Mann	1958
" " "	J. L. Gilbert... ..	1955
" " "	Mrs. D. M. Bridson (Miss Shepherd)	1963
" " "	Mrs. D. Polhill (Miss Moscoff)	1957
" " "	Mrs. F. Neate, B.A. (P/T)... ..	1963
" " "	Miss P. E. Carman (Cyprus)	1966
" " "	Mrs. J. S. Page	1966
" " "	P. J. Edwards	1967
" " "	Miss C. M. Barndon	1968
" " "	Mrs. S. Dickerson	1969
" " "	Miss L. A. Maskell	1970
" " "	(Herb. Accessions)	
" " "	Mrs. M. J. Bowen-Jones	1963
" " "	(Gardens Accessions)	
" " "	Miss M. A. Wood	1966
Botanist (Bentham-Moxon)	H. K. Airy Shaw, B.A.	1925
" " "	H. M. Burkill, O.B.E., M.A., F.L.S.	1969
" " (S. African Government).....	J. H. Ross, M.Sc., Ph.D., F.L.S.	1971
" " (Australian Government).....	L. Pedley, B.Sc.	1971
" " (Iraqi Government)	E. R. Guest, B.Sc., A.R.C.S., A.I.C.T.A.	1959
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. A. Claxton	1966
" " "	Mrs. F. V. Cox	1966
" " "	Mrs. H. Dzilna	1954
" " "	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
Clerical Officer	W. J. Nicholas, B.A.	1967
" " "	Mrs. C. A. Goldfinch (Miss Heron)	1969
Clerical Assistant	Mrs. I. I. Scott	1963
Shorthand Typist	Mrs. D. A. Campbell	1966
" " "	Mrs. P. L. Hampton (P/T)	1971

	<i>Entered Kew</i>
Gardener, Grade 1	W. A. Mullins 1942
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	G. R. Edwards 1965

LIBRARY

Librarian and Archivist	R. G. C. Desmond, F.L.A. 1961
Deputy Librarian	D. V. Wilson, F.L.A. 1970
Assistant Librarian	Miss K. E. W. Rattue, A.L.A. 1961
" "	Miss G. M. Grainger, A.L.A. 1964
" "	Miss C. M. K. Pope, B.A., A.L.A. 1971
Clerical Officer	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	Miss M. I. Hutchins 1967
Typist	Mrs. J. E. Taylor (P/T) 1966
"	Mrs. M. Gazzard (P/T) 1966
Paperkeeper	W. H. McGann 1970

TYPING POOL

Clerical Officer/Supt. of Typists.....	Mrs. M. J. Brind 1955
Audio Typist.....	Mrs. J. L. Renald 1966
" "	Mrs. P. M. Hutchinson 1966
" "	Mrs. K. M. Murphy 1968
" "	Mrs. R. Pfeiffer (P/T) 1970
Typist	Mrs. E. N. Attwood (P/T) 1964
"	Mrs. I. E. Lightman 1964
"	Mrs. E. J. Fitchett (P/T) 1965
"	Mrs. B. C. Davies 1965
"	Mrs. P. M. Frost 1970
"	Mrs. G. E. Hole (P/T) 1970
"	Mrs. J. E. G. Lewison (P/T) 1971
"	Mrs. Pugh (P/T) 1971
"	Mrs. L. J. Woodcock (P/T) 1971

JODRELL LABORATORY

Keeper (Senior Principal Scientific Officer)	K. Jones, B.Sc., M.Sc., Ph.D., F.L.S. 1960
Principal Scientific Officer	P. A. Thompson, B.Sc., M.Sc., Ph.D. 1964
" " "	D. F. Cutler, B.Sc., Ph.D., D.I.C., F.L.S. 1962
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
" " "	P. E. Brandham, B.Sc., Ph.D. 1969
" " "	F. R. Richardson 1934
Higher Scientific Officer	Miss M. Gregory, B.A. 1961
" " "	D. J. C. Fox, A.M.I.T.E. 1966

Entered
Kew

Scientific Officer	Miss C. A. Brighton	1965
" "	Miss S. Ebbels, B.Sc.	1971
" "	S. J. Owens, B.Sc.	1971
Assistant Scientific Officer.....	Mrs. R. Pusey	1970
" " "	Miss S. S. Forwood	1969
" " "	Miss M. Johnson	1970
" " "	Mrs. C. Parry	1970
" " "	Miss J. Marshall	1971
Laboratory Attendant	Mrs. E. Turrell (P/T)	1965
" "	Mrs. J. O. Ellis (P/T)	1969
Laboratory Craftsman.....	E. Borez	1967
Senior Photographer	T. A. Harwood	1965
Shorthand Typist/Receptionist	Miss V. Horwill	1951

BIOCHEMISTRY UNIT (A.R.C.)

Senior Principal Scientific Officer.....	T. Swain, Sc.D., F.L.S.	
Higher Scientific Officer	Mrs. G. Cooper-Driver, M.Sc., M.I.Biol.	
Scientific Officer	Miss R. M. Carter, B.Sc.	
Assistant Scientific Officer	S. Hall	

MUSEUMS DEPARTMENT

Senior Scientific Officer	Miss R. C. R. Angel, B.Sc., Dip.Hort.Sc., F.L.S.	1958
Higher Scientific Officer/Guide Lecturer	Miss L. M. Ponsonby, A.G.S.M....	1965
Information Officer/Exhibition Officer	P. Reid	1968
Assistant Scientific Officer	B. O'Dowd	1964
Museums Craftsman	R. Strong	1971
Supervisor of House Stewards.....	I. Pryke	1963
Clerical Assistant	Miss D. P. Gaskin	1971
Typist	Mrs. J. Carter (P/T)	1967

GARDENS

Curator	R. L. Shaw, N.D.H....	1966
Deputy to Curator.....	†J. B. Simmons, N.D.H.	1958
Assistant Curator	†G. H. Preston, A.H.R.H.S., F.L.S. (Herbaceous)	1934
" "	*†S. W. Rawlings, A.R.P.S. (Tropical)	1934
" "	†G. E. Brown, N.D.H. (Arboretum S.)	1946
" "	B. Halliwell, N.D.H. (Decorative)	1968
" "	†R. I. Beyer (Arboretum North) ...	1955
" "	C. M. Erskine (Temperate)	1968
Supervisor of Studies	†L. Pemberton, N.D.H., Dip.Arb....	1952
Gardens Supervisor	W. H. Bridle (Temperate House)...	1948
" "	†G. E. Nicholson (Orchids)	1947
" "	†A. G. Cook (Alpine & Herb.)	1948
" "	†A. J. Hale (Tropical Pits)	1955
" "	†A. G. Burgess (Arboretum S.)	1966
" "	R. J. Sadler (Arboretum N.)	1951
" "	H. J. Jackman (Decorative)	1949
" "	P. G. E. Smallcombe (Arboretum N.)	1964
" "	E. W. Macdonald (Succulents) ...	1950

	<i>Entered Kew</i>
Gardens Supervisor	†R. H. Rule (Tree Maintenance, Arboretum S.) 1956
" "	†J. R. Woodhams (Ferneries) ... 1959
" "	†M. J. Dawes (Tech. Services Dept.) 1964
" "	Mrs. R. M. Storr (Palm House) ... 1968
" "	†G. Pattison (Temperate H. Pits and Arboretum Nursery) 1969
" "	†H. J. Fliegner (Alpine and Herb.) 1963
" "	J. H. Mateer (Seed Dept., Arb. S.) 1952
" "	J. F. Warrington, N.D.H., F.L.S., A.Inst.P.R.A. 1970
P. & G.S. V.	G. E. Dixon 1948
Scientific Officer	J. Keesing 1967
Assistant Scientific Officer	Mrs. B. C. Brewer 1968
Clerical Officer	Mrs. M. D. Norman 1967
Laboratory Attendant	Mrs. M. J. Freeman 1968
" "	Mrs. D. M. Lower 1969

WAKEHURST STAFF (Ardingly, Sussex)

(W behind the year indicates direct entry to Wakehurst.)

Assistant Curator	†A. D. Schilling, Dip.Arb. ... 1959
Gardens Supervisor	†P. J. Brazier 1965
" "	F. G. Greenough 1958
" "	D. W. H. Townsend, N.D.H. ... 1965W
Higher Executive Officer	R. Forsdike 1966
Clerical Officer	C. H. Izard 1968W
Typist	Mrs. D. Williams 1971W

STUDENT GARDENERS ON A THREE-YEAR COURSE

(Commenced 6th October, 1969)

R. C. Bletsoe	V. P. Everett	A. Herscovitch	D. J. Trevan
J. P. Cox	Miss E. Feerick	B. R. Phillips	M. J. Whitehead
K. E. Eccleston	T. E. Gilbert	T. N. Savage	
J. C. Emerton	J. Harris	A. F. Titchmarsh	

(Commenced 28th September, 1970)

M. R. Abrahams	D. F. Howarth	W. G. Pusey	D. A. Stokes
Miss R. Colson	R. Hughes	A. G. Robinson	A. J. Stuttard
G. Dykes	J. D. McVicar	J. E. Rotherham	T. A. Trafford
S. J. Henchie	G. W. Morgan	K. V. F. Smith	S. J. White
R. G. Holmes	A. J. Mugford	B. L. Stannard	P. Williamson
N. J. Hoskins	R. A. Paterson	G. J. Stanfield	

(Commenced 27th September, 1971)

D. F. Allen	D. P. Cummings	R. Ivison	L. Phillbert
C. Bulmer	J. A. Darbyshire	J. Lonsdale	A. Ross
G. W. A. Chalmers	P. J. Gibson	A. B. Marsland	T. Watt
J. R. Craig	Miss P. Holt	D. Matthewman	
D. R. Crispin	D. J. Hutchings	D. R. Perham	

ADDRESS LIST OF OLD KEWITES (January, 1972)

(The names of Past Presidents are preceded by a dagger, Life Members by an asterisk and Active Members by a hyphen. The year of leaving Kew is indicated)

ABBREVIATIONS: H.G., Head Gardener; F., Foreman; N., Nurseryman; M.G., Market Gardener; C., Curator; A.C., Assistant Curator; D., Director; A.D., Assistant Director; M., Manager; S., Superintendent; A.S., Assistant Superintendent; D.S., District Superintendent; H.L., Hort. Lecturer; A.O., Advisory Officer; B.G., Botanic Gardens; H.J., Horticultural Journalist.

- 1959 -Adams, R., 69 Selwyn Avenue, Richmond, Surrey.
 1938 *Addison, G. H., 45 Cavendish Place, Eastbourne, E. Sussex.
 1957 -Addison, P., N.D.H., 6 Walney Road, West Derby, Liverpool, L12 5EW.
 1960 -Adshead, P., Hothley, Kingsgate Road, Winchester, Hants.
 1926 -Agate, C. J., RTI Box 645, WTZ, FLA 33549, U.S.A.
 1949 -Ainslie, E., 32 Bakewell Road, Hazel Grove, Stockport, Cheshire.
 1939 *Airey, J. E., Westmoor Gardens, Mansel Lacy, Hereford.
 1945 *Albert, Mrs. H. (Miss H. J. Stent), 65 Summet Street, Oyster Bay, Long Island, N.Y., U.S.A.
 1969 Alderson, M. J., 3 Shrubend Road, Colchester, Essex.
 1962 -Aldous, J., 504 Grace Way, Almonds Spring, Stevenage, Herts.
 1946 Allen, Miss B. (See Mrs. F. Christopher).
 1948 Allen, F. H., Coombe Villa, Wootton-under-Edge, Glos.
 1961 -Allen, J., 21 Shepherds Walk, Cove, Farnborough, Hants.
 1930 Allison, B. W., D., Parks Dept., Salford, Lancs.
 1956 Alphonso, A. G., B.G., Singapore, 10, SS.
 1945 *Ambrose, Miss R. M. (See Mrs. J. Souster).
 1957 Amoah, G. K. A., Ministry of Works and Housing, P. & Gdns. Div., P.O. Box 43, Accra, Ghana.
 1926 *Anderson, A. W. C., N.D.H.(N.Z.), 224 Church Street West, Timaru, N.Z.
 1965 -Anderson, G. H., B.E.M., 29 Glenwood, Harmans Water, Bracknell, Berks.
 Andman, M. J., 21 Blue Road, Tiptree, Colchester, Essex.
 1956 Andrews, B. R., Park Dept., City Hall, Edmonton, Alberta, Canada.
 1947 Andrews, R. H., 67 Chiltern Avenue, High Wycombe, Bucks.
 1922 *Andrews, W. G., 15 Lindsay Avenue, Levenshulme, Manchester, 19.
 1968 -Annawetty, Miss L. (See Mrs. M. Nunov-Mensah).
 1962 -Anwyl, R. B., "Dawn," Inglewood Drive, Alswick, Bognor Regis, Sussex.
 1954 -Appleby, J., 53 Rathbone Road, Liverpool, L15 4HG.
 1964 -Armony, A., c/o Dept. of Landscape Architecture, 7 Shearwood Road, University of Sheffield, Sheffield 10.
 1947 *Armstrong, C. E., N.D.H., H.L., Kesteven Farm Inst., Claythorpe Court, Nr. Grantham, Lincs.
 1970 Armstrong, G. D., Botanical Garden, Smith College, Northampton, Mass., 01060, U.S.A.
 1931 *Arnold, T. A., Box 90, Bedfordview, Transvaal, S.A.
 1920 *Ash, Mrs. W. (E. M. Harper), 22 Palace Court, Hampstead, N.W.3.
 1944 *Ashby, Mrs. D. (F. A. Sharps), Dip. Hort. (Reading), N.D.H., 145 High Street, Harston, Cambridge.
 1956 -Ast, R., Huob, 6330 Cham/ZG., Switzerland.
 1931 -Atkins, L. G., N.D.H., Flat 1, 187 Stanwell Road, Ashford, Middlesex.
 1958 -Atkinson, Miss A. L. M., N.D.H., Agricultural Education Office, Bridge House, Bakewell, Derbs.
 1954 -Attenburrow, D. T., c/o Fisons, Levington Research Inst., Ipswich, Suffolk.
 1950 -Attwood, C. A., Atlast, East Lane End, Fairmoor, Morpeth, Northumberland.
 1910 *Aubrey, A. E., 83 Newbridge Street, Wolverhampton, Staffs.
 1939 *Aves, J. J., D.S., P.O. Box 1454, Parks Dept., Pretoria, S.A.

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, Garden Supervisors, Student Gardeners, Scientific, professional and executive members of the staff of the Royal Botanic Gardens, Kew, and Wakehurst Place; also Voluntary Students and Research and Liaison Scientists, provided they have worked continuously at Kew or Wakehurst Place for at least twelve months. The term "Kewites" where used herein or by the Guild in other publications shall mean a paid-up 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 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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