



THE
JOURNAL
OF THE
KEW GUILD

AN ASSOCIATION OF
MEMBERS OF THE KEW STAFF
PAST AND PRESENT

1954 (Published 1955)

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EDITORIAL

We are not so foolish as to claim that our 1952-53 leader was in any way inspired but we are in the happy position of being able to announce that the determined optimism expressed therein has been justified in the event.

When we wrote we were in arrears both with our *Journal* and with our funds. Now, the publication of the 1954 *Journal*, following closely on the previous issue, and appearing in advance of the Annual Dinner and the Chelsea Show, is pretty good proof that we have caught up in this field. With a whole year in which to prepare the next *Journal*, and while maintaining its size, we shall take the opportunity to try to raise still higher the quality of its contents.

As to the financial position of the Guild, we have been cheered by the Treasurer, who tells us that he has extracted enough money from members since the publication of the last *Journal* to make it possible to return £50 of the large sum borrowed from the Jubilee Security Fund. It is too early yet to claim that we have put all our troubles behind us, as much of the money obtained was arrears of subscriptions, but we feel we can be reasonably certain that we have taken the first step towards recovery and the robust regrowth of the Fund. This result is largely due to the Treasurer's unwearying efforts, and he should have our congratulations and grateful thanks.

The omission of the full directory from the current issue of the *Journal* enables us to publish what we hope will be the first of several instalments of Mr. W. Dallimore's reminiscences of Kew. Mr. Dallimore was a member of the Kew Staff from the early "nineties" and for many years onwards, and although the outside world has seen great changes since his bloomer-clad hussies bicycled along Kew Road in face of the indignant and hostile opposition of their "respectable" sisters, some of the practices inside the nearby high wall, on the other hand, have remained much as they were that half-century and more ago!

We are also including an article by Mr. F. L. Squibbs on the Dominica Botanic Garden, which we feel will be of considerable interest to our members.

Two other contributions are worthy of special mention. Mr. T. A. Russell gives us an insight into the working of the new Quarantine House, and Mr. E. Worraker, who has completed his course as a Student Gardener during the year, writes on the Ecole Nationale d'Horticulture at Versailles.

Finally, the Editor wishes to place on record his indebtedness to the Secretary of the Guild and to the indefatigable Assistant Editor of the *Journal* for their very considerable contribution to the contents of the *Journal*.

THOMAS DOUGLAS MAITLAND.

Thomas Douglas Maitland was born in Perth, Scotland, on May 8th, 1885. He hardly remembers a time when he was not associated with plants. It was a family business and he had quite a wide experience in horticulture for his years by the age of 20. At this age he was bitten by wanderlust and he remarked to a friend who was in the wine trade and who had some connection with the vineyards on the Bute estates in South Wales, that he would like a break. Through this friend he got in touch with Mr. Willie Pettigrew, who was at that time Superintendent of Parks at Cardiff. He suggested that young Maitland write to his brother Hugh at St. Fagan's Castle, near Cardiff. After a period under the good guidance of Hugh Pettigrew, Maitland was transferred to Cardiff Castle, but in the meantime he had met Mr. Dallimore, who was on a visit to Hugh Pettigrew. Dallimore remarked that he hoped to see him at Kew in due time. Thus by a devious route he found himself at Kew in 1909. This he felt was a grand and unique experience, for it seemed to him that he had the whole world of plant life within his view. His wanderlust was intensified, and his object was to get to Africa. But how? That was the question.

He had hardly completed a year at Kew when Sir David Prain recommended him for the post of Curator, Botanic Gardens, Calabar, and he sailed for Africa in February, 1910. He had had his heart's desire. His work in Africa was, and has continued to be throughout his botanical service, of absorbing interest. In 1913 he was appointed District Agricultural Officer, Uganda, East Africa.

Here the work was entirely experimental, and took within its scope all sorts of economic crops. He did, however, particular work on coffee, and especially with *Coffea robusta*, and this culminated in a Bulletin "*Coffea robusta* in Uganda" setting forth its prospects as a major crop for the country.

In 1919 he was appointed Chief of Economic Plants Division, Kenya Colony, the duties of which took him over great stretches of the country. He was particularly interested in the native rice industry in the estuary of the Tana River at Lamu.

Mr. Maitland was settled in his work here when in 1922 he was asked by his former Director to return to Uganda to take up the post of Government Botanist which had just been vacated. He returned to much of his earlier work, but the new post gave him wider travelling facilities. It led to, for him, the memorable years 1923-24. The Uganda Wembley Exhibition Committee entrusted him with the task of preparing the exhibits for Wembley and setting them up at the local Agricultural Show, for the benefit of the inhabitants. This in turn led to his being sent home as Commissioner of the Uganda Council, at Wembley, where he was responsible for the general lay out. He was awarded

the M.B.E. in the 1925 Honours List, and received the Wembley Medal.

Another move was looming ahead. In 1927 he was appointed Superintendent, Botanic Gardens at Victoria, Cameroons. This was the result of Sir Arthur Hill's visit to the Cameroons the previous year when he urged that the gardens, after the war and succeeding years of neglect, be resuscitated. These gardens had been established by Dr. Preuss in the middle 1900's under the German Government.

He retired in 1931 after 22 years' Colonial Service. In that year he was made an A.H.R.H.S.

During Maitland's early leaves from abroad it was officially arranged for him to have courses in Plant Pathology. He came under the tuition of Mr. A. D. Cotton, who opened to him the vast field of the microscopic fungi, and in forays with the British Mycological Society, he became familiar with the larger British fungi. Extending this interest to Africa, he made a fungus survey of many of the Uganda forests, the results of which appeared in K.B., No. 1, 1917, in conjunction with Miss Wakefield, who handled all the material. This, together with his fungus specimens from all his travels, makes up one of the finest collections ever received at Kew.

Grasses are of great importance in the economy of a country. As little was known of the Uganda grasses, he made a survey of the grass flora. Here again the results appeared in K.B., No. 7, 1927, in conjunction with Mr. Hubbard, who described a number of new species, including *Digitaria maitlandii* and *Lasiurus maitlandii*.

Extending his interest to the Cameroons, and having explored the mountains, he wrote a description of the flora under the title "The Grassland Vegetation of the Cameroon Mountain," which appeared in the K.B., No. 9, 1932.

Mr. Maitland collected and sent a great number of Phanerogamic herbarium specimens to Kew. On his extensive travels, often for weeks on end, on foot, on horseback, or bicycle, depending on the terrain, he had ample opportunities of observing the changing flora. This interest in the flora was not incidental but complementary to his regular work, and the interest first generated at Kew was ever growing and if in his collections new species were brought to light, he felt gratified that his friends in the Herbarium would be the first to describe and record them.

And now our President looks back at the unfolded years with gratitude for all they have brought, through Kew, to enrich his life. We feel moved to add that his great success in life has been to a large extent due to his typical Scots determination to make the most of his knowledge and abilities all the way along. May this less strenuous part of his life be a long and happy one.

ANNUAL GENERAL MEETING, 1954.

The Annual General Meeting was held on Saturday, August 28th, 1954, at 3 p.m., in the Iron Room. The President, Mr. H. H. Thomas, presided with 52 members present. The notice convening the meeting and the minutes of the previous meeting were read and agreed. The President then asked members to stand in silence in memory of those Kewites who had passed away since the previous year. The Committee's Report was presented and adopted and the election of Officers then took place. Mr. Milne-Redhead proposed that Mr. T. D. Maitland be elected President for the ensuing year; this was seconded by Mr. Bullock and carried unanimously. The election of four members of the Committee to take the place of those retiring in 1954 then took place and Messrs. V. S. Summerhayes (Kew), C. E. Cherry (Sutton), A. J. Brooks (London), and Major G. Cook (France), were elected. Mr. W. M. Campbell was proposed as Hon. Secretary for the ensuing year, and this was carried, whilst Mr. L. Stenning was re-elected Hon. Treasurer. Mr. E. Nemes was elected Hon. Editor and Mr. E. W. Curtis Assistant Editor. Messrs. E. G. Dunk and E. F. Coward were elected as Auditors.

The Hon. Treasurer then submitted his financial report and dealt fully with the various funds belonging to the Guild. He emphasised the difficulties which had arisen in the publication of the *Journal* and in the calls made upon the Jubilee Security Fund. Considerable discussion then took place and several members stressed the necessity of preventing any further inroads being made into the Capital Account.

Mr. Coward said that as Auditor he had had the opportunity of going through the books and found everything completely satisfactory. He wondered how many of the members appreciated the tremendous effort Mr. Stenning put into this side of the Guild activities. It was usual for the members to register their complaints, but for over 20 years Mr. Stenning had been carrying out this work in an excellent manner, and we were lucky to have a man of his calibre. It was obvious that certain things did require consideration, and with careful thought and study it should be possible to lighten the work of the Treasurer without detriment to the Guild. He understood that a Sub-Committee had been appointed to go into the finances and regulations of the Guild, and he felt that the accounts which do not now present a true picture of the assets, etc., should receive their consideration. The Jubilee Security Fund was one which had received our wholehearted support, and such funds should not be frittered away. He hoped that the members of the Sub-Committee would see their way clear to evolving some method whereby the Guild could live within its means.

The President then moved that the financial report be adopted, and this was carried.

Members desired to express their appreciation to Mr. H. Collin for his action in returning the sum of 10 guineas which had been advanced to him during his illness.

Mr. Stock recommended that, in future, members should be circulated with a brief summary of the Accounts prior to the Annual General Meeting, and this was seconded and approved.

The Editor and Assistant Editor then spoke of the progress being made with the *Kew Guild Journal*, pointing out economies to be made by reduction in the number of *Journals* and also a change of printers. They hoped to have the joint 1952/53 volume published by October and to follow this with an abbreviated issue early in 1955.

The Membership Sub-Committee Report was then presented by Mr. Stock, who outlined the proposals made, and after some lengthy discussion it was decided to leave the matter in the hands of the Sub-Committee at the moment, and for Mr. Stock to try with one or two other members to get corresponding secretaries in selected areas, with a view to the adoption of this scheme generally throughout the country. The suggested alterations to the Rules put forward by the Sub-Committee were referred to the General Committee with a view to any agreed action being taken before the next Annual General Meeting. It was moved and adopted that a copy of the Sub-Committee's suggestion should be incorporated in the *Journal* now ready for press.

Under "Any other business" Dr. Turrill moved that the terms of reference of the Sub-Committee should be so enlarged as to give them the opportunity of redrafting the whole of the Rules of the Guild, and asked that at the same time the question of trustees for the Capital Funds should be considered. Mr. Bullock seconded this proposal and the meeting voted in favour of its adoption. Before the conclusion of the meeting, Mr. Stock proposed a hearty vote of thanks to the President for the very able way he had carried out his duties during the year and also to the various Officers and Committee who had worked on behalf of the Guild since the last meeting.

The meeting closed at 4.5 p.m.

KEW GUILD GENERAL ACCOUNT, 1954.

RECEIPTS				EXPENDITURE			
	£	s.	d.		£	s.	d.
Balance from 1953 a/c ...	66	10	7	Printing the 1952-53			
Annual Subscriptions and				<i>Journal</i> :—			
Arrears	90	12	0	800 Booklets	188	0	0
Donations	5	4	4	2 pages art paper ...	4	0	0
Additional Life Subscrip-				1,000 Manilla envelopes	2	5	9
tions	8	16	0	Wreath for the late A. C.			
Dividends on £300 3%				Whipps	3	3	6
New South Wales Stock				Hon. Treasurer's Postages			
£9 0s. 0d., less Income				including overseas			
Tax @ 9/-	4	19	0	<i>Journals</i>	3	14	9
Dividends on £26 6s. 3d.				Balance in Post Office			
3½% War Stock	18	4		Savings Bank	78	4	3
Dividends on £500 3%							
War Savings—Sir A. W.							
Hill's bequest	15	0	0				
Dividends on Jubilee Per-							
manent Security Fund	8	17	0				
Dividends on £220 2½%							
Savings Bank—W. H.							
Judd's bequest	5	10	0				
Advertisements in 1952-							
53 <i>Journal</i>	71	9	6				
Interest in Post Office							
Savings Bank	1	11	6				
	£279	8	3		£279	8	3

KEW GUILD CAPITAL ACCOUNT

LIABILITIES				ASSETS			
	£	s.	d.		£	s.	d.
160 Life Subscribers @				£300 3% New South			
£1 @ ½ rate	80	0	0	Wales Stock	300	0	0
228 Life Subscribers @				£26 6s. 3d. 3½% War			
£2 @ ½ rate	228	0	0	Stock	26	6	3
113 Life Subscribers @				£500 3% War Savings—			
£3 3s. 0d.	355	19	0	Sir A. W. Hill's bequest	500	0	0
7 Life Subscribers @				£220 2½% Savings Bank—			
£5 5s. 0d.	36	15	0	W. H. Judd's bequest	220	0	0
Loan from Jubilee Per-				Valuation of <i>Journals</i> in			
manent Security Fund	218	16	3	Stock	129	15	0
Outstanding Advert ...	2	5	0	Valuation of Typewriter	2	0	0
Assets exceed Liabilities	334	10	3	Balance in Post Office			
				Savings Bank	78	4	3
	£1,256	5	6		£1,256	5	6

MATILDA SMITH MEMORIAL PRIZE FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	32	7 1	Prize awarded to R. M. Hardie ...	2	2 0
Dividends on £50 3% Savings Bonds ...	1	10 0	Balance in Post Office Savings Bank ...	32	12 5
Interest on Post Office Savings Bank ...		17 4			
	£34	14 5		£34	14 5
<hr/>					
(Assets £50 3% Savings Bonds and balance in Post Office Savings Bank, £32 12s. 5d.)					

THE BENEVOLENT FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	131	1 2	Donation of £5 0s. 0d. to Mr. R. Mason ...	5	0 0
Subscriptions ...	—	— —	Balance in Post Office Savings Bank ...	139	18 5
Interest on Post Office Savings Bank ...	3	7 3			
Refund from Mr. H. Collin ...	10	10 0			
	£144	18 5		£144	18 5
<hr/>					

WATSON MEMORIAL EDUCATIONAL FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	145	15 3	Nil		
Receipts ...	—	— —	Balance in Post Office Savings Bank ...	152	18 3
Dividends on £100 3½% War Stock ...	3	10 0			
Interest on Post Office Savings Bank ...	3	13 0			
	£152	18 3		£152	18 3
<hr/>					
(Assets £100 3½% War Stock and Balance in Post Office Savings Bank, £152 18s. 3d.)					

DÜMMER MEMORIAL PRIZE FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	47	5 11	Prize awarded to D. D.		
Dividends on £70 4% ...			Riach	2	2 0
Funding Loan	2	16 0	Balance in Post Office		
Interest on Post Office			Savings Bank	49	4 9
Savings Bank	1	4 10			
	<u>£51</u>	<u>6 9</u>		<u>£51</u>	<u>6 9</u>
(Assets £70 4% Funding Loan and					
Balance in Post Office Savings					
Bank, £49 4s. 9d.)					

THE PROUDLOCK PRIZE FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	11	3 0	Insurance Premium on		
Dividends on £25 4% ...			Tennis Cups	7	6
Funding Loan	1	0 0	Engraving 2 Silver Tennis		
Interest on Post Office			Cups (2 years engra-		
Savings Bank		6 9	vings)	1	10 0
			Prize awarded to A. S.		
			Jones	1	1 0
			Balance in Post Office		
			Savings Bank	9	11 3
	<u>£12</u>	<u>9 9</u>		<u>£12</u>	<u>9 9</u>
(Assets £25 4% Funding Loan and					
Balance in Post Office Savings					
Bank, £9 11s. 3d.)					

KEW GUILD JUBILEE PERMANENT SECURITY FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Carried forward from			Deficit on General Fund,		
1953 account	592	1 6	1950-51-52	218	16 3
Donations, 1954	42	19 6	Deficit on Dinner, 1950,		
			and printing notices ...	8	10 10
			Barclays Bank	32	13 11
			Invested in 3% Savings		
			Bonds	295	0 0
			Invested in 3½% Savings		
			Bonds	80	0 0
	<u>£635</u>	<u>1 0</u>		<u>£635</u>	<u>1 0</u>

KEW GUILD DINNER, MAY, 1954
Held at the "Windsor Castle," Victoria

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Sale of tickets :—			To Castle Catering Co.,		
116 @ 16/6 each ...	95	14 0	Ltd. :—		
15 @ 14/6 each ...	10	17 0	135 Dinners @ 13/6 ...	91	2 6
4 Guests ...	—	—	10% Service Charge ...	9	0 0
			Refreshments for Com-		
			missionaire ...	5	0
			Gratuity for Commis-		
			sionaire ...	1	2 6
			Menu Cards ...	1	4 0
			Hire of Microphone ...	1	1 0
			Balance ...	2	16 6
	<u>£106</u>	<u>11 6</u>		<u>£106</u>	<u>11 6</u>

KEW GUILD TEA, AUGUST, 1954
Held at Kew

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Sale of tickets :—			To Messrs. John Gardner,		
87 @ 3/- each ...	13	1 0	Ltd. :—		
3 Guests ...	—	—	90 Teas @ 2/6 each ...	11	15 0
Donation ...	2	0	Balance ...	1	18 0
	<u>£13</u>	<u>3 0</u>		<u>£13</u>	<u>3 0</u>

KEW GUILD WAR MEMORIAL FUND

RECEIPTS			EXPENDITURE		
	£	s. d.		£	s. d.
Balance from 1953 a/c ...	92	17 0	Messrs. D. M. Williams,		
			Ltd., purchase of 9		
			yds., Ferolite Tiles @		
			16/- per yd. ...	7	4 0
			Messrs. William Wood &		
			Son, 2 Taplow Burma		
			Teak Seats @ £18 3s. 0d.		
			each + Purchase Tax		
			£3 0s. 6d. ...	42	7 0
			Supplying and fixing Teak		
			posts and rails at War		
			Memorial ...	19	10 0
			Balance in Post Office		
			Savings Bank ...	23	16 0
	<u>£92</u>	<u>17 0</u>		<u>£92</u>	<u>17 0</u>

Audited and found correct.

E. F. COWARD, }
E. G. DUNK, }

Hon. Auditors.

April 21st, 1955.

ANNUAL DINNER, 1954

The Annual Dinner was held on Wednesday, May 26th, at the Windsor Castle, Victoria, London, S.W.1, when approximately 140 people were present.

A very excellent meal was enjoyed by all, after which the President (Mr. Harry H. Thomas, V.M.H.) proposed the toast of Her Majesty the Queen. Mr. F. G. Preston then proposed the toast of the President, and stated that he first met him in 1905. The President was, he said, very fond of cricket and in one particular game they were rival captains.

Originally destined to be a bank official, the President transferred his affections to gardening, commencing his training at the Royal Gardens, Windsor, under his father, Owen Thomas, a very well-known horticulturist. He afterwards served in France on the estate of Baron de Rothschild whence he became a student gardener at Kew. Having successfully completed his studentship he returned to become a foreman at the Royal Gardens, Windsor, and subsequently, because of his flair for writing, accepted the post of Assistant Editor of "Popular Gardening." Later he became Editor of this publication and served in that capacity for over 40 years. He was also gardening correspondent to the "Morning Post" for many years, and later occupied the same position for the "Daily Telegraph." He thought that no one man had ever written more gardening books than our President, as they numbered in the region of 40-50, including one entitled "In Love with Mother Earth," written in memory of his own garden.

Mr. Preston pointed out that the President was awarded the Victoria Medal of Honour, the highest award that could be given to a horticulturist, thereby following in the footsteps of his father who had also been granted this medal. The President's award was made in conjunction with men like Lord Aberconway and Sir William Lawrence, evidence of the very high esteem in which the President was held in horticultural circles.

In response the President thanked the members of the Guild for the honour conferred upon him, one which he appreciated very much, and he also thanked Mr. Preston for the able and kindly way he had proposed the toast. The President stated that every man liked to stand well in the estimation of his fellow men, and valued the friendship of those with whom he was associated, although he would blush at the exaggeration of his attainments to which Mr. Preston had given voice.

The toast of the Kew Guild was then proposed by the President, who aptly termed it "The Toast to Ourselves." He stated that having worked at Kew, men became members of the Guild whether they liked it or not. He pointed out that this practice was not always good for the Guild. Members had their responsibilities as well as their privileges, and he therefore appealed to all to rally round, pay their dues, and make the Guild a flourish-

ing institution. He thanked the Officers and the Committee for their conscientious labours on the Guild's behalf. As the work of Kew advanced in both prestige and authority the influence of the Guild would also spread. The introduction of new species of plants increased the labours of those who worked in the Herbarium and also in the Gardens, and as they came into cultivation those additions would so tax the accommodation available that one day soon Kew would have to spread her wings over new territory. Many young men, he said, still sought adventure overseas, thereby following those who blazed the trail long ago. Those men would seek the help and support of the Guild. Members of the Guild were united by a bond of good-will which lasted and held fast throughout the years by common interests that never flagged or faded away. All had a common purpose in life, each according to his opportunities, and it was our pleasure to preach the gospel of gardening and how best to live for that ancient and noble craft in which we took delight. The Guild was a strong link in the chain of lifelong friendship so let us give it our unwavering support.

The Students' prizes were then presented by the President to the following:—

Matilda Smith Prize—Mr. R. M. Hardie.

The Hooker Prize—Mr. P. Maunder.

C. P. Raffill Prize—Mr. C. Donaldson.

Mutual Improvement Society's Prize—

Mr. L. A. Pemberton.

The Dümmer Memorial Prize—Mr. D. D. Riach.

The Proudlock Jubilee Prize—Mr. A. S. Jones.

"Kew Notes" Award—Mr. P. J. Jew.

Dr. Bor, Assistant Director, proposed the health of the official guests, Mr. Gordon Forsyth, editor of "Popular Gardening," and Mr. J. Newell, Curator of the John Innes Horticultural Institute. He paid tribute to the fine work carried out by both gentlemen in their respective spheres and extended to them a very hearty welcome. He also expressed the hope that they would long be spared to continue their work which was of such great importance to horticulturists. In his reply Mr. Forsyth thanked Dr. Bor for the presentation of the toast and the members for their kindness in having invited them to be present that evening. He himself was a Wisley man and though proud of that, had always regretted not having served at Kew.

At the President's request, Mr. W. M. Campbell, Secretary, called for a special welcome to all those members home from overseas and to those amongst the visitors who were serving with the Imperial War Graves Commission and in other spheres thereby contributing their quota to horticultural activities.

The dinner completed, a very enjoyable half-hour was spent by the members before the proceedings finally broke up at 11 p.m.

STUDENT GARDENERS.

A few changes have taken place in the Students' course during the past year. The Students are always seeking practical ways of improving their course and although far-reaching and important ideas, such as the proposed Diploma Course, seem to have been shelved, some small improvements have taken place.

A new system whereby Students are allowed a choice of department for their final move is now well established and very popular. Upon their arrival all Students now receive a letter of welcome from the Students' Association outlining all the activities here at Kew, as well as other helpful information such as details of the evening classes held at Richmond. The aim is to put new Students a little more in the picture during their first few weeks.

Women are now eligible to take the Student Gardeners' course at Kew, and during the year we have been pleased to welcome our first lady Student.

EXAMINATIONS.

This year there were five candidates from Kew for the N.D.H. Intermediate Examination and we are pleased to announce that four were successful.

DEMONSTRATIONS.

Unfortunately very many demonstrations have not been held, due to various reasons and not the least among which is the difficulty of arranging for two intakes a year to fit into a two-year course. However, a new system has been worked out and we hope it will provide the solution to this problem, making possible the original forty demonstrations for every Student in his two years.

LECTURES.

There are no changes to report in either the lecturing staff or the time-table. It is true to say that the large majority of Students make full use of the lectures and they are very much appreciated. It is unfortunate that so many have to be held in the evening, as this reduces the time for private study, this especially being felt by N.D.H. candidates. However, this is outside the control of the Kew authorities.

PLANT IDENTIFICATION.

The fortnightly "Plant Idents" have been very popular and quite well attended, although our knowledge of the Coniferae and Gramineae seems to be decidedly limited! From the new year the tests will be compulsory for second year Students.

G. COLLINS, *Hon. Secretary.*

MUTUAL IMPROVEMENT SOCIETY, 1953-54

During the past year the Society has held 27 meetings in the Iron Room. The subjects have, as usual, been very varied, although only 15 "Mutuals" were given by Students, a lower number than usual. However, the standard has been just as high as in previous years.

We have the Secretary, Mr. P. Maunder, to thank for arranging a most interesting series and it is pleasing to record that the average attendance was 32.5, the highest for many years.

This last Session saw the introduction of the "Quickie" which has proved more than successful. The idea was to have four short lecturettes in an evening, thus allowing subjects to be dealt with which were not long enough for a full evening, and also to give an opportunity to Students who did not feel that they could give a long lecture. Once again a Brains Trust was held and this proved very enjoyable and educational. In addition to the usual debate against Wisley, which Kew won comfortably, a joint debate was held with Cambridge in which each team had a speaker from both Cambridge and Kew.

The three annual prizes were won and duly presented at the Kew Guild Dinner. They were: The Hooker Prize, won by Mr. P. Maunder for doing the most to help the Society; The C. P. Raffill Prize, won by Mr. C. Donaldson for the best lecture; and the Society's Prize, won by Mr. L. Pemberton for promoting the most discussion during these evenings.

During the summer there were three outings to places of Horticultural interest: Bedgebury Pinetum and Forestry Plots on August 8th; Chelsea Physic Garden on Wednesday evening, September 1st, and Messrs. Sanders Orchid Nurseries on September 26th.

I should like to record my sincere thanks to our Chairman, Mr. Souster, for the very willing help and guidance always given by him, and to our Vice-Chairman, Mr. Preston, for the help he has also given. In closing I should like to say that I hope the coming Session will be as successful as this one.

B. W. TILL, *Acting Hon. Secretary.*

SYLLABUS.

1953

Oct. 5.	*The Vegetation of the Himalayas ...	Dr. N. L. Bor
" 12.	Engines of Horticultural Machinery ...	Mr. C. Donaldson
" 19.	*General Nursery Practice ...	Mr. J. Rigby
" 26.	Collecting and Mounting of British Flora ...	Mr. K. Burras
Nov. 2.	*The Rôle of the Jodrell Laboratory ...	Dr. C. R. Metcalfe
" 9.	Winter Gardening	Mr. L. Pemberton
" 16.	Roses	Mr. A. Massey
" 23.	Tropical Waterlilies	Mr. D. Attenburrow
" 30.	"Quickies"—Messrs. C. A. Duncan, R. M. Hardie, B. W. Till	
Dec. 7.	*Tropical Horticulture	Mr. T. Ekanayaka
" 14.	Sports Ground Maintenance	Mr. P. Towle
" 21.	Brains Trust—Dr. C. R. Metcalfe, Mr. A. A. Bullock, Mr. J. Fisher and Mr. F. Maclean	

1954

Jan. 4.	Some Oceanic Components of the British Flora	The Director
" 11.	Lawn Tennis Courts	G. Watson
" 18.	Beautification of Parks and Open Spaces	R. W. Murden
" 21.	Kew—Wisley Debate: That in the Interests of Horticulture and Mankind in General the Building of Houses on a Low Density scale should be abandoned and High Density planning adopted. Speakers for Kew: Mr. L. Pemberton and Mr. J. Wright. Motion carried— 31 to 21	
" 25.	*Alpine Plants in Nature	Mr. G. E. Collins
Feb. 1.	Floral Decoration	Mr. L. Stenning
" 8.	Establishment and Care of Water Gardens	Mr. G. Crowder
" 15.	Weather and Horticulture... ..	Mr. C. Shepherd
" 22.	Glasshouse Heating	Mr. M. Billett
Mar. 1.	*Plant Photography	Mr. G. Atkinson
" 8.	Production of Flowering Plants under Cloches	Mr. J. Lucas
" 15.	Kew—Cambridge Debate: That Horti- cultural Examinations do not satisfac- torily assess Professional Ability. Speakers for Kew: D. Attenburrow (second speaker for Motion) and G. Collins (first speaker against Motion)— Motion rejected—26 to 23	
" 22.	"Quickies"—Messrs. A. S. Jones, J. Chapman, J. Wright, P. J. Jew	
" 29.	Films—I.C.I.	
Apr. 15.	Some Abnormalities of Plant Life ...	Mr. E. W. MacDonald

* Lantern Lectures.

* * *

Written on a wooden label received at Kew from a Borstal Institution:—"Why don't you stop growing plants, as we are getting fed up making name tags for them."

BRITISH BOTANY CLUB, 1954.

With our President, Mr. Ballard, in the chair the Annual General Meeting was held in the Iron Room on Friday, April 2nd. Dr. Bor and 19 members were present. The following Committee was elected:—Messrs. A. Jones, P. Jew, G. Crowder; Secretary, Mr. D. Riach.

Although the summer was very wet members showed keen interest in the 12 outings made during the year, most of which were to our usual "hunting" grounds.

A successful experiment was made in connection with a trip to Epping Forest, this being held in conjunction with Students from the Essex Institute of Agriculture. The Annual Outing, this year led by Dr. Turrill, was to Milford-on-Sea, and since this was one of the few trips made in fine weather, members returned with excellent "hauls." Amongst trips spoilt by the weather was our orchid one to Sittingbourne, this having to be abandoned after only half-an-hour's collecting, due to heavy rain.

Eight members submitted collections this year, the judges awarding the Dümmer Memorial Prize to Mr. P. Jew and the Proudlock Jubilee Prize to Mr. I. Wilkinson. Mr. F. Vickers's collection was highly commended, whilst satisfactory collections were submitted by Messrs. J. Boulton, G. Kemish, G. Manger, C. Baylis and J. Tyte.

Five lectures were arranged for the winter, to be given by Dr. Turrill and Messrs. Souster, Meikle, Ballard and Hubbard. At the time of writing, three have been held with great success.

The Club's Herbarium has received a much needed overhaul during the winter and a number of new specimens have been added, notably a collection donated by Mr. Souster. A member also donated a press to the Club. Greater interest has been shown by Students in all the Club's activities this year and the increase in the number of collections submitted is particularly noteworthy. It is hoped that this interest will be increased in succeeding years until the Club once again enjoys the popularity accorded it before the war.

The Club's thanks are due to our President, Mr. Ballard, to Dr. Bor, and to all those, both in the Gardens and the Herbarium, who helped in so many ways to make 1954 such a success.

D. D. RIACH, *Hon. Secretary.*

CRICKET CLUB, 1954.

The 1954 Season brought the Club many ups and downs. Out of a fixture list of 17 matches we won 5, lost 4 and drew 1. Of the rest, 6 were cancelled (unfortunately including our match with the Old Kewites) and one abandoned.

We started well with practice games on Mondays and Wednesdays. Attendance was good at first but numbers soon diminished—possibly caused by the speed bowlers finding the bumps!

Dealing briefly with the individual games; our first match was against our welcome visitors, Ilford Parks Department. A magnificent stand between D. Pringle, the Captain, 50 not out, and C. Stone, 18, enabled Kew to win by six wickets. Ilford were all out 77; Kew, 78 for 4 wickets.

Our visit to John Innes provided thrills galore. Kew batsmen could only score 15 (C. Baylis, fresh after several years, scored 7); "J.I." were 22 all out. D. Pringle, in six overs, bowled two maidens and took eight wickets for seven runs.

Playing Bayer Products on a cold, windy day, we soon had them in trouble, Wheatcroft taking a wicket with his first ball. We had them all out for 24 runs. Pringle, again bowling well, took 8 wickets for 11 runs. We won by 6 wickets.

Although losing by two wickets our visit to Rothamsted was most enjoyable. The figures were: Kew 57 runs, Rothamsted 58 for 8; D. Pringle 6 wickets for 9 runs.

In the return match at Kew, John Innes again helped themselves to a grand win by 7 wickets. Kew were 46 all out, P. Wheatcroft making 17.

Kew v. P.O.S.B. Match drawn; 25 runs each. Our "Trevor Bailey," G. E. Nicholson, faced 15 overs for one run; Vickers scored 13.

Kew beat Kew Bridge Nomads by two runs. D. Tomlinson, 5 wickets for 14 runs.

Our game with Cambridge Botanic Garden on Kew Green ended in a fine 9 wicket victory for Kew. Cambridge batted first against good bowling by Wheatcroft and Pringle and they were soon all out for 47. Kew's opening bats, A. S. Jones and P. Wheatcroft, scored 21 and 19 respectively and Pringle scored the remainder needed to win.

Our only game with Wisley was played on their ground and resulted in another 9 wicket victory for Kew. Wisley were all out for 54 runs. Kew hit 56 for 1 wicket, of which P. Wheatcroft's share was 22.

On our return visit to Ilford they scored 99 runs. Six of our wickets fell for 14 runs, but we then improved. Wheatcroft

scored 17, Tomlinson 15 and Jones 49. Pringle, last to go in, had three runs to his credit when he tried to hook a good length ball and was caught—resulting in the team losing by one run.

In conclusion I should like to thank Messrs. Campbell, Stenning, Tomlinson and Stone and Miss D. M. Newton (Scorer), and all others who helped. I trust that the 1955 Season will be as enjoyable as that of 1954.

F. VICKERS, *Hon. Secretary.*

FOOTBALL CLUB—1953/54

As reported in the last *Journal* there was no organised fixture list this season. However, a number of “friendlies” were played and the results of these are given below.

November:	Gunnersbury Park ...	...	Won:	6—1
December:	P.O.S.B. ...	...	Won:	4—1
January:	Gunnersbury Park ...	...	Lost:	1—3
	Wisley ...	...	Lost:	4—1
March:	Gunnersbury ...	...	Drawn:	2—2

THE RUNNING CLUB, 1954.

JOHN INNES RELAY RACE.

For the first time John Innes arranged a relay race round their gardens with Cambridge, Kew and themselves taking part. The course, which was rather a stiff one, was three miles in length. The race was won by Kew—perhaps due to the cheering of their female supporters! John Innes came in second with Cambridge third. The race was followed by a most enjoyable meal and social evening.

Kew's team:—E. Worraker, G. Collins, E. Baverstock, P. Tucker, L. Pemberton and G. Watson.

TOSSING THE PANCAKE RACE.

This race was held for the first time on Shrove Tuesday, March 2nd. It did not produce as big an entry as had been hoped, due to the date clashing with the R.H.S. Show. There were six runners who lined up for the start, in a variety of garbs, and set off down the Broad Walk tossing pancakes as they went. Onlookers saw an exciting race, in which one pancake jumped over the line without its owner. The winner was Mr. C. Shepherd.

WISLEY TO KEW RELAY RACE.

This year, for the first time, we were pleased to have Cambridge University Botanic Garden taking part. Unfortunately, however, John Innes were unable to send a team, so that there were again only three teams taking part.

At the first stage Kew and Cambridge runners came in together with not an inch between them, and by the second stage Kew were just a few yards behind, with Wisley well in the rear. After this Kew took the lead, and at Gloucester Court, Kew, there was a crowd of thirty people to see the Kew runners come in nine minutes ahead, thus smashing the course record (set up by Kew last year) by 6 minutes 17 seconds, and so winning the race for the fourth successive year. Meanwhile Wisley and Cambridge were fighting it out, and when they came into sight they were running neck and neck, but in the last few yards Wisley pulled away to win by one second.

After the race a tea was held in Saint Ann's Church Hall and, during the enjoyable social evening that followed, Mr. Campbell presented the Cup to the Kew Captain and the Maori Batons to the Wisley Captain.

Kew's team in order of running :—R. Hoyte, G. Collins, E. Baverstock, L. Pemberton, C. Powell and G. Watson.

Finishing Times :—

Kew	...	...	1 hr. 30 mins. 43 secs.
Wisley	...	...	1 hr. 40 mins. 21 secs.
Cambridge	...	...	1 hr. 40 mins. 22 secs.

CAMBRIDGE RELAY RACE.

Kew were kindly invited to bring a team to run against Cambridge on May 22nd. The race was run round their gardens in pouring rain, but for all that was a most enjoyable one. It was a close race throughout, there being little difference between the two teams, but in the end Kew just won by a few seconds, and so maintained their unbroken run of victories.

Kew's team in order of running :—P. Tucker (once round the gardens), R. Hoyte (twice round), C. Baylis (once round), G. Collins (once round), G. Watson (three times round).

CLOG AND APRON RACE.

There were eight runners for this event, which was run on the evening of May 6th. As always there was a large crowd to watch the runners charge down the Broad Walk. The race was won by G. Watson, with C. Baylis second, and D. Pringle third. The time, 55 secs., was slower than usual.

ROUND THE GARDENS RACE.

This race was held on the evening of October 27th, four departments being represented. For the second year running the Arboretum were winners, gaining first and third places. The winner's time was 15 minutes 52 seconds.

Results :—

- 1st—Arboretum : G. Watson (1st), G. E. Collins (3rd).
- 2nd—Temperate Department : T. Muller (2nd), C. Shepherd (5th).
- 3rd—T. Range : M. Billett (6th), H. Hind (7th).
- 4th—Ferneries : R. Hoyte (4th).

G. WATSON, *Hon. Secretary.*

HOCKEY CLUB, 1953/54.

A fuller fixture list was drawn up for this year on the assumption that regular games would invoke more support. This proved to be justified and the support of a number of Old Kewites was enlisted. Further improvements were made by the purchase of new equipment and moving the "home" pitch from Marble Hill Park to Gunnersbury Park, where there are better changing facilities. In order to offset some of the increased costs of the Club playing members were asked to subscribe 6d. each per match; all did this willingly. A sum of £4 0s. 6d. was collected in this way.

Altogether a fixture list of 18 matches was drawn up. Three were cancelled owing to inclement weather, 5 were won, 8 lost and 2 drawn. This was a record number of matches played and won by the Club in one season. The total number of goals scored was 28 for and 56 against.

Before closing this report I should like to express the thanks of the Club to Mr. S. S. Attenburrow and Mr. F. Blythe, who between them assured that referees were available for all matches. Thanks are also due to the various members of the team and opposing sides, who organized so many enjoyable socials after the games.

D. C. ATTENBURROW, *Hon. Secretary.*

HERBARIUM LECTURES

An activity which, hitherto, has not been recorded in the *Journal* concerns the winter series of illustrated lectures which have been held in the Herbarium during the past four years. These lectures have been mainly of a semi-popular and informal nature at which visiting botanists and members of the Staff who have made interesting field trips abroad have given a botanical account of their tours.

The series of lectures continued successfully during 1954 :—

Dr. P. H. Davis, Royal Botanic Garden, Edinburgh, gave two lectures on "The Flora of Turkey," where he outlined the main floristic contrasts between the Mediterranean vegetation of the Taurus, the steppe of Central Anatolia, and the damp forests of the Pontus. He further described ascents of some of the high mountains and their characteristic plants.

Prof. W. H. Pearsall, Professor of Botany, University College, London, who had recently returned from a brief visit to Uganda and adjacent regions, gave an interesting talk on "Land Use in East Africa" with reference to the important problems of applied biology such as soil erosion, tsetse control, water conservation and the utilisation of swamp-lands.

Prof. J. Heslop-Harrison, Professor of Botany, Queen's University, Belfast, spoke on "The Flora of Ireland" and took

his audience on a tour of the more notable botanical localities from the south-west, round by way of the west coast to the north-east, including the Burren, Co. Clare, the Giant's Causeway and Ben Bulbin. Special mention was made of fossil plants, ferns, orchids and general distribution in relation to climatic and soil features.

Dr. R. Melville, member of the Herbarium Staff in charge of the Australian section, who had previously made a twelve months' tour in Australia, gave an account of plant collecting in Victoria and Western Australia which was most adequately illustrated by an excellent series of Kodachrome slides.

Mr. F. L. Hill, Ministry of Supply, who was aboard the Government research ship "Campania" at the atomic test in the Monte Bello Islands, spoke on the flora of these islands and drew attention to the flora of South Australia with reference to distribution and endemism.

Mr. G. Collins, a student gardener at Kew, illustrated his talk on the "Alpine Flora of Northern Italy" with an excellent series of Kodachrome slides and gave an account of the ascending levels of plant habitats and related floras from the lower alpine meadow at 3,000 feet, through alpine wood, alpine scrub, and high alpine pasture up to the high scree flora at 8,000 feet. Mention was made of a brief visit to Mount Blanc and the Col. de l'Iseran.

Dr. Marion Ownbey, State College of Washington, U.S.A., lectured to the scientific staff on his genetical research regarding hybrid swarms occurring in North American species of *Tragopogon*.

J. KENNEDY-O'BYRNE.

KEW METEOROLOGICAL NOTES, 1954.

The weather of 1954, in broad terms, was divided into four parts—a cold late winter, a dry spring, a very dull, wet and cool summer, and a mild and occasionally stormy autumn and early winter.

January and early February produced some severe weather, with numerous frosts. Yet, such is the British climate, the 15th with a temperature of 57.7°F. created a new January maximum record at Kew Observatory.

March was rather cold and wet, but April was extremely dry, absolute drought lasting from the 7th to the 30th. This suggests much sunshine and in fact it was our tenth sunny April in succession. It was, however, disappointing in its cool nights with up to 20 ground frosts in places. May's weather was about average, but with fluctuating temperatures, one at least of which rose above 80°F., a height not to be reached again during the whole of the three months of that so-called summer.

Cool and dull and rainy were June, July and August, and all about equally so. There have been many wetter summers, but for coolness, wetness and dullness combined the summer of 1954 was the worst for more than half a century.

September was sunnier and less rainy than usual, but we did not seem to appreciate this because the month failed to make amends for the summer's coolness. Except for the 1st, when the temperature went up to 87°F. in London, the whole month was rather cool.

October did warm up, in fact, there are only two warmer Octobers on record, but this was too late for holidays. November returned to the wetness of the summer, which, however, kept fogs away.

December, as in 1953, was unusually mild. It was notable in West London, on the 8th, for a minor tornado, which was accompanied by a thunderstorm. The main track of the tornado appears to have been from Kew or Richmond, east of the Gardens, through Gunnersbury and Acton to Willesden.

E. NELMES.

1954	Rainfall in		Temperature	
		Inches	Maximum	Minimum
January	0.95	56°	22°
February	2.17	57°	27°
March	2.20	66°	23°
April	0.41	64°	31°
May	2.21	84°	40°
June	4.20	76°	45°
July	2.60	79°	45°
August	3.44	80°	51°
September	1.69	87°	38°
October	1.94	78°	55°
November	3.62	61°	26°
December	1.88	58°	20°
		27.31		

VIIIth INTERNATIONAL BOTANICAL CONGRESS, 1954

The Congress proper opened in Paris on July 2nd and continued with two sessions daily until the 13th, but the Nomenclature Section assembled three long days before this, and I flew to Paris on June 27th in order to represent Kew. On July 1st I was joined by my wife, Dr. and Mrs. Turrill, Mr. and Mrs. Summerhayes and Dr. Metcalfe; I waited at the Paris air terminal for over three hours—their aircraft had developed engine trouble (before take-off, fortunately) and they had been delayed at London.

Whether Paris was the best Congress ever I cannot say, but certainly it was the biggest—over 2,500 botanists and their wives from all over the world were registered members and the accommodation of all these persons in the 26 main sections of the Congress strained the capacity of the salons and lecture theatres of the immense Sorbonne to the utmost. The office arrangements and information bureaux (with interpreters speaking almost every language) were excellent, and the Ladies' Committee made first-class arrangements for the entertainment of the non-botanical wives almost every day.

A particularly notable and welcome feature of the Congress was the freedom with which the "Iron Curtain" botanists moved about and mixed with their western colleagues—in direct contrast with the conditions which had prevailed at Stockholm in 1950.

During "off duty" hours various visits and excursions had been arranged, an afternoon and evening at Versailles, which concluded with the magnificent show "Sound and Light" in which the history of Versailles was traced in drama form by means of cunningly placed loudspeakers which gave a "stereophonic" effect and flood-lighting of such perfection that it had to be seen to be believed. The script was read by the best actors and actresses in France; every word was beautifully enunciated and the intonation made the meaning clear even to those who spoke no French at all.

The weather throughout the Congress was cool and inclined to rain; the most brilliant day of all was the one we spent round the Forest and Chateau of Fontainebleau. There we had an open-air lunch, sitting at tables where the gleaming white of the napery hurt one's eyes: the wine flowed very freely and the after-lunch speeches were much enjoyed—especially by the speakers!

And there were visits to the Jardin des Plantes—not at all like Kew in either size or form—to the nurseries and arboretum of the Arboretum Vilmorinianum, where new methods in horticulture and plant breeding are scientifically tested and improved.

It is not possible to give an account of the more serious side of the Congress. Lectures innumerable, followed by discussions, which but rarely became rancorous, was the keynote of the Congress, but its real value lay in meeting and talking with one's foreign colleagues, and in the exchange of views, botanical and otherwise. A mere name suddenly became a personality, and often what had been obscure in a man's published work became clear when a few brief words of background explanation were spoken.

We all returned to London on July 14th—Bastille Day; Paris was *en fête*, but Kew looked very lovely and peaceful as we flew in.

A. A. BULLOCK.

Dr. JOHN HUTCHINSON, LL.D., F.R.S., F.L.S., V.M.H.

On the evening of Thursday, May 6th, 1954, a number of botanists met together at Brown's Hotel in London to do honour to Dr. John Hutchinson, who has recently celebrated his 70th birthday and also 50 years' work at Kew.

Dr. and Mrs. Hutchinson were entertained to dinner and afterwards Dr. W. B. Turrill, Keeper of the Herbarium and Library at Kew, recalled his long association with Dr. Hutchinson and expressed the desire of all present to wish him many more years of useful work and their profound appreciation of his services to taxonomic Botany during the last half-century. Dr. George Taylor, Keeper of the Department of Botany, British Museum, then recalled his own personal friendship with Dr. Hutchinson, extending over some 25 years, and said that although as a botanist he was still a pupil of Dr. Hutchinson he was his teacher in inducing salmon and trout to attach themselves to hooks, and he hoped that Dr. Hutchinson would never forget all the lessons he had learned north of the border.

Dr. Hutchinson said how deeply gratified he felt at the expression of friendship and esteem with which he had been overwhelmed; not least among the pleasures which the evening had given him was the obvious air of friendliness and co-operation now existing between Kew and the British Museum.

Mr. Milne-Redhead said that he had received numerous messages of congratulation and eulogy to be read out on this historic occasion. The first was a folded card bearing on the outside a pen and ink sketch of the facades of the herbaria at Kew and Berlin-Dahlem and inside a laudatory message in copperplate signed by the doyen of German taxonomists, Dr. J. Mildbraed and members of the staff at Berlin-Dahlem. Then came a message from Dr. Hutchinson's old pupil, Professor W. Robyns, of Brussels, who was represented at the gathering by M. Troupin. Professor H. J. Lam, of Leyden, and Professor C. G. G. J. van Steenis, on behalf of the Flora Malesiana Foundation, added their congratulations and there were also messages from Dr. R. A. Dyer and his staff at Pretoria and Miss H. Forbes at Durban, from Mr. J. S. L. Gilmour, of Cambridge, Mr. A. C. Hoyle, of Oxford, and from Dr. F. A. Mendonça on behalf of all Portuguese botanists, and finally a charming message from Professor R. E. Woodson, of Missouri, on behalf of all those botanists who like himself are personally unknown to Dr. Hutchinson, but who know him well by the inspiration of his work.

Present at the dinner were:—G. Atkinson (Kew), F. Ballard (Kew), Miss E. A. Bruce (Colonial Office), A. A. Bullock (Kew), J. E. Dandy (B.M.), A. W. Exell (B.M.), Mrs. Exell (B.M.), J. B. Gillett (Colonial Office), C. E. Hubbard (Kew), R. W. J. Keay (Govt. of Nigeria), Dr. R. Melville (Kew), Dr. C. R. Metcalfe (Kew), E. W. B. H. Milne-Redhead (Kew), N. Y. Sandwith (Kew), Dr. G. Taylor (B.M.), G. Troupin (Brussels), Dr. W. B. Turrill (Kew).

WEDDING BELLS.

Mr. Kenneth Burras to Miss Mary Williamson at Kingston-upon-Thames on April 8th, 1954.

Mr. Charles Donaldson to Miss Eunice Gamble at York on March 20th, 1954.

Mr. D. A. G. Jones to Miss Pamela Carey at Parish Church, Kingston, near Lewes, Sussex, on July 31st, 1954.

Mr. D. C. Attenburrow to Miss K. Bodger at Leicester on Saturday, December 11th, 1954.

Mr. Harold R. Dally, of Dept. of Botany, University College, Cardiff, to Miss Sybil Lipscombe, of Ferndale, at Tylorstown, Glamorgan, on September 4th, 1954.

Mr. John O. Taylor to Miss Morag Russell at St. Mary's Church, Merivale, Christchurch, New Zealand, on October 16th, 1954.

Mr. Gordon S. G. Scott to Miss Elizabeth Keir in Bermuda on December 18th, 1954.

KEWITES AS AUTHORS

The following books by Kewites were published during 1954:—

N. L. Bor and M. B. Raizada—"Beautiful Indian Shrubs and Climbers" (Bombay Nat. Hist. Soc.) 22 Rupees.

J. Coutts, A. Edwards and A. Osborn—"The Complete Book of Gardening." Revised and edited by G. H. Preston. Ward Lock & Co., Ltd. 35s.

J. Coutts—"Everyday Gardening." Revised and edited by G. H. Preston. Ward Lock & Co., Ltd. 21s.

T. H. Everett. "The American Gardener's Book of Bulbs." Walter Rouzen, Random House, New York. \$5.95.

M. Free—"Gardening: a complete guide to garden making, etc." [Rev. ed.] New York. PermaBooks: Doubleday & Co., Inc. 50 cents.

J. S. L. Gilmour and M. Walters—"Wild Flowers. Botanising in Britain." (New Naturalist). Collins. 25s.

C. E. Hubbard—"Grasses." Penguin Books, Ltd. 3s. 6d.

J. Hutchinson and J. M. Dalziel—"Flora of West Tropical Africa." Vol. I, Part 1. Revised by R. W. J. Keay. Crown Agents for Oversea Governments and Administrations. 25s.

E. M. Marsden-Jones and W. B. Turrill—"British Knapweeds." Ray Society. 27s. 6d.

Stella Ross-Craig—"Drawings of British Plants." Part VII. Leguminosae. G. Bell & Sons, Ltd. 12s.

Elsie M. Wakefield—"The Observer's Book of Common Fungi." Fredk. Warne & Co., Ltd. 5s.

The Herbarium Staff—"Two parts of the 'Flora of Tropical East Africa.' Chenopodiaceae 2s.; Turneraceae 1s. 8d. Crown Agents.

POSITIONS TAKEN BY STUDENTS ON LEAVING KEW DURING 1954

Attenburrow, D. C.....	Asst. Agriculture Officer, Dept. of Agriculture, Nairobi, Kenya.
Ashley, R. F.....	R.H.S. Gardens, Wisley.
Baverstock, E.....	Nursery Foreman, Uxbridge Parks Dept.
Burras, J. K.....	Inside Foreman, Oxford Botanic Garden.
Dalglish, J.....	Ealing Parks Dept.
Donaldson, C.....	University Field Station, Wytham, Nr. Oxford.
Duncan, C. A. A.....	Zeidab Plantations Co., Ltd., Sudan.
Hardie, R.....	Jan Boer & Son, Export Nurseries, Boskoop, Holland.
Heyworth, J.....	Marylebone Gardens Dept.
Halhead, J.....	Foreman, Colchester Parks Dept.
Massey, A.....	Worcester Teachers' Training College.
Maunder, P.....	Turf Research Institute, Bingley, Yorks.
Pemberton, L.....	Demonstrator, Horticultural Dept., Reading University.
Roberts, M. S. F.....	Hammersmith Parks Dept.
Smalley, E. N.....	Roads Beautifying Association.
Tapson, O. V.....	Waterer, Son & Crisp, Berks.
Towle, P.....	Nottingham Parks Dept.
Watson, G.....	Johannesburg Parks Dept., South Africa.
Wheatcroft, P.....	Southgate Parks Dept.
Worraker, E. N.....	Plantation Assistant, East Malling Research Station.

NOTES AND GLEANINGS.

EXAMINATION SUCCESSES.

We have further examination successes to report and are pleased to congratulate the following :—

N.D.H.—Messrs. H. R. Dally, E. A. Pemberton and H. Taylor.
Mr. Dally was awarded the Chittenden Memorial Prize which is given to the candidate obtaining the greatest number of marks.

N.D.H. (Inter.)—Messrs. E. Baverstock, D. Attenburrow, G. E. Collins, G. Crowder and E. H. Worraker.

D.I.P.A.—Mr. F. G. Dyson.

D.I.P.A. (Inter.)—Messrs. D. A. Brown, D. G. Clark, E. V. H. Rolls, D. Hubbard and G. Littlewood.

I.P.A. College Final.—Messrs. R. A. Bee, G. Littlewood and E. V. H. Rolls.

I.P.A. College Inter.—Mr. D. Hubbard.

B.Sc.—Miss Sheila Nelmes (Mrs. W. N. G. Gilmour).

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Mr. C. E. Hubbard was awarded the O.B.E. in the New Year's Honours List, 1954. We congratulate Mr. Hubbard, an eminent Agrostologist, who is one of the two members of the Herbarium Staff who have also been Student Gardeners.

Mr. J. Souster was elected a Fellow of the Linnean Society in November, 1954, thus following Mr. G. H. Preston, who was elected a Fellow in April, 1953.

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Mr. P. J. Greenway, who was a student at Kew in the early 1920's, received the honorary degree of Doctor of Science from the University of Witwatersrand in 1954. He was one of a number receiving degrees during celebrations to mark the centenary of Bloemfontein. The honour was conferred upon him for his work in Botany in East Africa, where he has spent most of his career as Systematic Botanist, first at Amani and recently at Nairobi. When he got to Amani, in 1927, the herbarium there contained about 1,000 specimens. At the transference of the collection, of which he is in charge, to Nairobi in 1950, he had raised the number of specimens to 70,000. He is a Fellow of the Linnean Society and was awarded the O.B.E. in the New Year's Honours of 1951. Mr. Greenway was at Kew in 1954, and returned to Nairobi by way of South Africa.

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We are glad to welcome to the Kew Staff Mr. T. A. Russell, B.Sc., A.R.C.S., A.I.C.T.A., who was appointed on January 1st as successor to Sir Geoffrey Evans, to supervise the work of the Quarantine House and matters concerning tropical crops. Mr. Russell was previously in the Colonial Agricultural Service as Plant Pathologist and later as Director of Agriculture, Bermuda, and then as Senior Agricultural Botanist, Nigeria.

* * *

The work of raising the tow-path, by several feet, along the boundary of the Gardens as far as Ferry Lane was completed during the year. This should obviate or minimize the risk of flooding to the Gardens and prevent some parts of the tow-path from becoming unusable at high tide as often happened in the past. The danger of flooding at Spring tides remains, however, for the residents of Kew Green (on the river side), unless the work of raising the tow-path is continued.

* * *

AWARD OF CORONATION MEDALS, 1953.

On the occasion of Her Majesty's Coronation in 1953, the following members of the Kew Staff were awarded Commemoration Medals:—Sir E. J. Salisbury, Dr. W. B. Turrill, C. E. Hubbard, E. G. Dunk, H. W. Ruck and Sergeant G. E. Williams.

Further news of 1953 is the appointment of Mr. G. Milton to the post of Assistant Park Superintendent at Gillingham, Kent. Mr. Milton, who left Kew in 1950, had previously been at Clacton-on-Sea.

* * *

We were recently pleased to have the news that Mr. J. G. Medcalf was appointed to the position of Deputy Parks Superintendent at Dudley, during 1953, in succession to Mr. C. Richardson. He left Kew in 1948 and had been at Beckenham before taking up his present post.

* * *

Contemporaries of Mr. F. R. Lavender, who was a Student in 1949, will be glad to learn of his appointment as Deputy Parks Superintendent at Yarmouth. On leaving Kew Mr. Lavender entered the Portsmouth Parks Department under another Old Kewite, Mr. Studley, and subsequently was promoted to the post of Foreman. After $3\frac{1}{2}$ years at Portsmouth he obtained his present position, which he took up towards the end of 1953.

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Mr. F. R. Long, a Kewite of 1908 vintage, who had been Parks Superintendent of Port Elizabeth for 22 years, has now returned there after 10 years' absence in Johannesburg. He plans to continue his work as horticultural consultant and landscape architect.

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Mr. G. C. Johnson, O.B.E., retired from his position as Deputy Provincial Director for the Eastern Province of N.A.A.S. in September, 1954. We wish Mr. Johnson, who left Kew just prior to World War I, much happiness in his retirement.

* * *

We are pleased to hear from Liverpool of the progress there of two of the younger "Old Kewites," Messrs. J. E. Gibbons and J. R. Sieben. Mr. Gibbons has been appointed Supervisor of Botanical and British Flora Collections for the City Parks Department at Calderstones Park, whilst Mr. Sieben has taken up the position of Supervisor of the Glasshouse Department in the same park.

* * *

Mr. George Mellors went to the Uxbridge Parks Department as Nursery Foreman, under Mr. H. H. Willis, on leaving Kew in September, 1952, and it is pleasant to record that his progress was such that he was appointed Deputy Superintendent in March, 1954.

Following the above appointment, Mr. E. Baverstock, well known for his athletic achievements whilst at Kew, took up the post of Nursery Foreman, Uxbridge, on completing his course at Kew.

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MATILDA SMITH PRIZE.

This prize, for the best Student taking the lecture courses, was awarded to Mr. R. M. Hardie. Mr. Hardie, whose home is in Melbourne, Australia, came to Kew from Leicester Parks Department and on leaving went to join Messrs. Jan Boer & Son, the Export Nurseries of Boksoop, Holland.

* * *

Although the "golden days" of plant collecting may be over there is still the chance of finding and bringing home plants lost to cultivation at Kew. Special care must, of course, be taken not to uproot great rarities which may turn out to be but ephemeral in cultivation. While he was a Student in the Alpine Department, Mr. G. Collins brought back to Kew some plants from a holiday in the Alps of N.W. Italy. His collection included *Ranunculus glacialis*, *Pterocallis pyrenaica*, *Silene vallesia*, forms of *Campanula allionii*, *Viola calcarata* var. *alba* and *Nigritella* (*Habenaria*) *nigra*. Many more were seen in unbelievable profusion and photographed in colour; *Aquilegia alpina*, for example, looked far more beautiful than when seen in cultivation.

* * *

The complement of Foremen at Kew was increased by three, to a total of eleven, on January 19th when, following the recommendations of an appointments board, Messrs. Anderson, Wells and Curtis were appointed Foremen Gardeners of the Palm House, Temperate House and Tropical Pits respectively. Mr. M. A. Wells and Mr. Geo. Anderson had been acting as foremen in their departments for a good number of years, whilst Mr. E. W. Curtis had been a Student Foreman for some months.

* * *

It is pleasing to record that an Old Kewite, Mr. F. P. Knight, F.L.S., has been appointed to the Directorship of the Wisley Gardens. Mr. Knight started his career at Werrington Park, Launceston, Cornwall, in 1915. After serving at Edinburgh Botanic Garden he came to Kew in 1923 as a Student Gardener, and was later in charge of the Arboretum Nursery until he left in 1929. He leaves the post of Managing Director of Messrs. R. C. Notcutt to take up his new position.

Mr. Graham Littlewood was appointed Landscape Supervisor to the City Architect, Leeds, in June. He left Kew in September, 1952, and had just completed the final course at the Institute of Park Administration's School of Training. The post is a new one and should prove most useful and interesting.

* * *

Mr. J. D. Cameron has joined the other Old Kewites in Kenya, where he has been appointed Parks Assistant in Nairobi. Mr. Cameron left Kew in October, 1953, to become a Foreman of Colchester Parks Department. We wish him every success in his new venture.

* * *

Mr. W. N. G. Gilmour, who attended the Institute of Park Administration School of Training on leaving Kew in June, 1952, has been appointed Technical Assistant with the Scunthorpe Parks Department. Previously he had spent 18 months as a Technical Assistant with the L.C.C. He has our best wishes in his new post.

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AWARDS OF MERIT.

Four plants exhibited by Kew at the R.H.S. Fortnightly Shows gained Awards of Merit:—*Angelonia gardneri*, *Ardisia crispa*, *Burchellia capensis* and *Ixora chinensis*. A First Class Certificate was awarded to *Lilium davidii*.

* * *

At the Annual Show of the British Fuchsia Society, held on August 10th and 11th, Kew staged a small exhibit of *Fuchsia triphylla* L., of special interest as being the "type species" of the genus.

* * *

Members will be sorry to learn of the long illness of Mr. Harry Collin, lasting from June until the end of 1954. Mr. Collin, who was in the Tropical Pits for many years, is now in charge of the Quarantine House, under Mr. Russell, the Economic Botanist. We are glad that he is back at work and trust he will now enjoy better health.

* * *

Within the normal complement of Students there are now eight from abroad. Both New Zealand and South Africa are represented by three men and from the Continent we now have a Student from Holland and one from Switzerland.

During the past year we have had four unpaid Students at Kew. Mr. Ekanayaka, from Peradeniya Botanic Garden, will soon be returning to Ceylon after two years with us. He was joined in the Spring by Mr. Dahampath, Curator of the University Park, Peradeniya, who is staying at Kew for one year. Mr. Alphonso, from Singapore Botanic Gardens, arrived in October, and is staying for two years. We had a three months' visit from Mr. Sugito, of Bogor Botanic Garden, Indonesia, who has been studying in Holland. All four Students have been working under Mr. Stenning in the Tropical Department and it is hoped that their period at Kew will prove useful to them upon their return home and that they will have happy memories of their stay here.

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VISITORS TO THE GARDENS.

The total number of visitors to the Gardens during 1954 was 1,110,305, a decrease of 101,650 on the 1953 attendance. The greatest number of visitors in one day was on Easter Monday when there were 46,132, in contrast to which only four came in on December 8th.

* * *

Towards the end of 1954 Miss N. T. Burbidge returned from Kew to the Canberra Herbarium, Australia, *via* the United States, visiting the Washington and other herbaria *en route*.

* * *

Dr. R. A. Dyer, who was South African botanist at Kew in the 1930's, and is now Chief of the Division of Botany at Pretoria, attended the International Botanical Congress at Paris in the summer of 1954. He spent a short time at Kew, during which his daughter was married at Kew Church, before returning to South Africa.

* * *

The present botanist representing South Africa is Mr. D. J. B. Killick. He took the place of Mr. B. de Winter, who went back to Pretoria in 1954. Mr. de Winter is now in charge of and is revising the grass collection in the Pretoria Herbarium.

* * *

Mr. H. N. Ridley, 7 Cumberland Road, Kew, reached the great age of 99 on December 10th, last. After his retirement from the Directorship of the Singapore Botanic Gardens, in the early 1920's, he worked in the Kew Herbarium.

Dr. John Hutchinson, F.R.S., has been honoured by being elected a Corresponding Member of the Botanical Society of America in September, 1954.

* * *

We were pleased to learn of the appointment of Mr. Peter W. Rodick, who left Kew in 1948, to the post of Playing Fields Supervisor to the Derbyshire County Council.

* * *

Mr. Henry Boddington has been appointed Deputy Parks Superintendent at West Bromwich. He formerly came under Mr. T. S. Wells at Derby and we wish him every success on taking up his new duties on January 1st, 1955.

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Miss S. M. Trower, now back from Villa Bologna Gardens, Malta, has taken up a position with Elm Garden Nurseries, Claygate, who specialise in house plants. She joins Mr. Peter Brasher, who left in 1953 to become foreman propagator of the House Plant Department. Miss Trower is responsible for maintenance contracts and her work includes much plant decoration.

* * *

Mr. K. Offord, who left Kew in April, 1952, to take up an appointment as foreman in the Parks Department, Wellingborough, has now been appointed a Teacher of Gardening at the Newmarket Secondary School and takes up his duties on January 1st, 1955. Mr. Offord joins Messrs. Carn and Farrar who have been doing similar work for the past 18 months, and all come under the guidance of Mr. F. Clarke, who for many years has been the Horticultural Adviser to the West Suffolk Education Committee.

* * *

BROADCASTS BY MEMBERS OF THE STAFF.

A series of appearances by members of the Kew Staff was arranged in the Television programme "Out of Doors," commencing with a visit to the Cambridge Cottage Garden, where the Director and Curator explained something of the work carried out at Kew. Later in the series Mr. Campbell gave a talk on "Dahlias" and Mr. Stenning gave a demonstration on the propagation and cultivation of Succulents. Mr. Pearce made two appearances, his subjects being "Flowering Shrubs" and "Carnations," whilst Mr. Rawlings had "House Plants" as his subject.

Mr. Stenning also took part in one of the Sunday afternoon broadcasts with Roy Hay, again talking about Succulents. Mr. Pearce gave a talk in "Woman's Hour" entitled "Shrubs for the Garden."

The new Bristol reservoir in the Chew Valley in the Mendip Hills has proved interesting to the archæologist as it was found to be the site of a Roman villa. Archæological excavation revealed a well at the villa which was full of pieces of wood, etc., and these were sent to the Jodrell Laboratory at Kew for identification. The wood was found to include common British species such as Hazel and Oak, also Larch and Silver Fir which did not at that time grow in the British Isles and therefore had been imported from the Continent. Some of the wood appeared to form parts of notice boards for there was lettering on it, some of which was deciphered. Seeds of *Pinus pinea* were also found in the well. These are edible but there is no evidence that they were used for food in this case. The help given by the Jodrell Laboratory in this work formed the subject of a broadcast given by Dr. Metcalfe in the series "The Archæologist."

* * *

A minor tornado swept by the Gardens on December 8th when the roof of Gunnersbury Station was ripped off. Some damage was sustained by a few houses in Kew but fortunately the Gardens escaped the main force. However, two valuable trees were destroyed, the very fine specimen of *Paulownia tomentosa* was blown down as was a good specimen of *Sassafras officinale*.

* * *

SOCIAL ACTIVITIES AT KEW.

The Christmas Party was again held in Saint Ann's Church Hall. Fancy dress was optional this year but about 50 dressed up and entered for the fancy dress competition, many of the guises being really good. The Herbaceous Department and the Palm House each put on a short sketch and both proved very successful and amusing. Several raffles were held and the best was won by Miss Molly Sillitoe who seems to have been very lucky during the last eighteen months as she had already won four first prizes at our dances!

*

The annual Herbarium Christmas Party took place in the Mounters' Hut on December 21st, 1954. This year, in addition to the usual entertainment supplied by various members of the Staff, we were most delighted to have a visit from a choir of Student Gardeners and friends who gave us a pleasant half-hour of Christmas carols and generally added to the enjoyment of the evening.

I. B.

The usual evening's carol singing in aid of the "Star and Garter" Home for Disabled Ex-Servicemen raised £9 17s. 6d. this year. As indicated above, the evening coincided with the Herbarium Christmas Party and the singers were made most welcome there and regaled with refreshments. On a second evening £6 1s. 1d. was collected for Dr. Barnardo's Homes when Dr. and Mrs. Metcalfe once again very kindly invited the carollers to refreshments.

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During the year three dances were held. The main Annual Dance, held this year on March 4th, proved to be a great success and those held in January and November were likewise much enjoyed. Messrs. Jack Wright and Brian Andrews added to the entertainment with their story-telling.

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Whist Drives continued on the first Friday of each month, although not well supported by members. Mr. E. G. Dunk is to be thanked for his help in running them throughout the year.

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"FLORAL PHILATELY."

A philatelic innovation was introduced to the R.H.S. Show at Vincent Square on November 30th, 1954, when Mr. C. H. Curtis exhibited his unique thematic collection of some 2,500 stamps of all countries, depicting in one form or another, plants in Horticulture, Agriculture, Forestry and Economics. All, with few exceptions, were classified and named. Among plants featured were the *Victoria regia*, *Welwitschia mirabilis* and also many palms such as *Oreodoxa regia*. There were orchids of Colombia and Ceylon which remind us that Mr. Curtis holds a record of 50 years as a member of the R.H.S. Orchid Committee. This most interesting display was rewarded with a special vote of thanks from the President and Council.

F. S. S.

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We learn from Mr. Joseph Short that he returned to his native New Zealand at the end of 1953, after 12 years in India. He has joined the Parks and Reserves Department at Whangare, to the north of Auckland. He has been struck by the way in which trees and shrubs quite common in his Indian garden do quite well there and he hopes to experiment with other interesting and beautiful subjects which are not being grown. During recent travels he has met a number of Old Kewites, both in New Zealand and Singapore. He will miss his Indian experiences with the rambles in the tropical forest and the mountain meadows of the Himalayas.

Visiting a furniture sale near his home Mr. Osborn noticed a lady looking hard at him for some time and she finally introduced herself as Miss Fuller (now Mrs. Snelling) who had been at Kew during World War I. Mr. Osborn soon discovered that she had been a great traveller since her Kew days. On leaving Kew in 1918 Mrs. Snelling went to South Africa for two years. She returned for a spell of work in England and on the Continent and then went to Ceylon and South India for two years. Another period back in England was followed by an extensive visit to Southern and Eastern Africa. Mrs. Snelling is now manageress of a florist's business in Wokingham.

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KEW CHRISTIAN UNION.

A Christian Union has been formed at Kew, its members being drawn from the Students and Staff of the Gardens and from the Herbarium, as well as the Commonwealth Mycological Institute. It is affiliated to the technical section of the Inter-Varsity Fellowship and since last May increasing interest has been shown in its activities. Meetings are held fortnightly on Wednesdays.

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Early in April, 1954, Miss S. S. Hooper, B.Sc., took up the post in connection with the National *Dianthus* Species Collection left vacant through the tragic death of Miss P. A. Rawdon, B.Sc., in February.

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Mr. K. Evans has been appointed an area head gardener at Keighley, Yorkshire, and we understand he finds the work very much to his liking. Mr. Evans left Kew in 1952 to join the Southend Parks Department where he subsequently became an acting head gardener.

* * *

Mrs. M. L. Sprague (*née* Green) was elected President of the Cotteswold Naturalists' Field Club for the year 1953/4.

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Dr. T. A. Sprague continued his ceramic studies, and published an illustrated article on "Worcester Tea-sets" in the "Apollo" magazine for March, 1953.

He published a list of the 144 Rust Fungi hitherto recorded from Gloucestershire in Proc. Cotteswold Naturalists' Field Club for 1952, which appeared in September, 1954. This included a rare Rust discovered by him in October, 1953.

Reference is made in the December issue of the South African Journal of Veldtrust to the development being carried out in the Johannesburg Parks and Recreation Department now controlled by Mr. W. G. Sheat, an Old Kewite. The Department is ranked as the second largest in the Commonwealth and has an annual expenditure of over £800,000. Plans and estimates have been prepared for half a million pounds' worth of capital expenditure and it is hoped to carry out this on a long-term plan. The City Parks Department has a staff of 1,470 employees, included in which are various young men from this country who have gone to take up important positions in this huge undertaking. We wish Mr. Sheat well in his work and trust that all Old Kewites who serve him will bring credit both to Kew and to the City Council, and assist wholeheartedly in the excellent work now being undertaken.

* * *

Mr. R. A. Bee, who recently completed the I.P.A. course at The Grotto, has taken up an appointment at Bedford College, Regents Park, as head gardener in charge of the gardens and grounds of the College and the Holme.

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We learn with pleasure of the award of the C.B.E. to Major H. B. Sharpe for his work in laying out the grounds of the Royal Lodge presented by the people of Kenya as a wedding gift to the then Princess Elizabeth. Major Sharpe, who left Kew in 1913, was at one time a District Commissioner in Kenya. He is well known in East Africa for having laid out many beautiful grounds there.

* * *

Following the amalgamation of the American "Home Garden Magazine" with the "Flower Grower," Mr. Montague Free, the well-known American horticultural author, is now serving in a dual capacity as Senior Editor of the "Flower Grower" and as Horticultural Consultant to Messrs. Doubleday & Co., the book publishers.

* * *

Mr. Geoffrey Corbett has now retired from the Colonial Service in Cyprus and has returned to this country to live in Hertfordshire. Mr. Corbett left Kew in 1920 to become an assistant estate manager in Uganda and he also served for many years in Mauritius. We wish him much happiness in his retirement.

We also learn of the retirement of Mr. P. Robertshaw, for many years Director of the Parks, Recreation and Beaches Department at Durban, South Africa. Mr. Robertshaw passed through Kew in the early 1920's; we wish him a long and enjoyable retirement.

*

We are pleased to learn that another Old Kewite, Mr. F. W. Thorns, has been appointed to succeed Mr. Robertshaw. Mr. Thorns, who had previously held another position at Durban, was Curator of Kirstenbosch Botanic Gardens for many years.

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Further news from Durban is of the appointment of Mr. C. C. van Ryneveld to the post of Deputy Director. Mr. Ryneveld left Kew in 1938; his previous position had been Superintendent of the Parks and Gardens Section at Durban.

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RECONSTRUCTION AND DEVELOPMENT AT KEW.

Houses 7, 8, 9 and 9A of the T-Range were all rebuilt during the summer, in Burma teak, on the original foundations. The new houses have been designed to provide the maximum amount of light during the dull winter months. To provide this the side lights were raised six inches, the old-fashioned roof lantern was done away with and fewer glazing bars and larger panes of glass were used. The side stages were also renewed and the hot water pipes were replaced in houses 7, 8 and 9. The potting shed was extended up to the *Odontoglossum* pit, so providing more adequate room for working and for storing materials. A new porch has been constructed at the gable end of No. 7 and this is connected to the corridor linking the Sherman Hoyt and South African Succulent Houses.

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During the summer many of the large Aloes, Euphorbias and *Cereus*, which were permanently planted out in No. 5, had to be lifted and tubbed up in readiness for the rebuilding of this house. In the middle of September we commenced clearing out the plants. The large specimen Aloes were taken to the Temperate House and staged on either side of the middle entrance doors. Those plants requiring more heat, such as Aloes, Euphorbias, *Cereus* and *Phyllocactus* were housed on the middle N.W. grating in the Palm House. The smaller plants were all housed in No. 7 and the Sherman Hoyt. By the last week of October, No. 5 house was cleared of all plant material in readiness for the builders to commence operations on November 1st. At the end of the year the house was still empty awaiting demolition by the builders.

Two small aluminium glasshouses have been erected in the Melon Yard by Messrs. V. & N. Hartley, Ltd. The object is to test the practical value of this type of house and its suitability for different kinds of plant material. One of these is being used by the Tropical Pits whilst the other is housing succulents and will later be available for the Decorative Pits.

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In December the roof of House No. 20 of the Decorative Pits was stripped, the iron framing cleaned of rust and, after being given a coat of protective paint, new lights were incorporated in both the roof and side.

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A good deal of additional equipment has been purchased for the machine shop and artificer's use, including cylinder-boring equipment and a compressor with various attachments. It is now possible to carry out a complete overhaul of a machine without outside assistance.

*

New structures in the Stable Yard include a Dutch Barn for the storage of hay, and a large galvanised and steel shed for storage of equipment and materials. A large oil storage shed of brick and concrete has also been erected.

*

The cold room and refrigerator installed last year is now in use and galvanised trays are being used for those seeds requiring cold storage. Seeds such as those of an oily or mucilaginous nature will, it is hoped, be stored successfully and so enable many to be sent out which had previously lost their viability too quickly. Experiments with stratification are also being conducted.

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Experiments have been continued with the composting of grass mowings, leaves and coffee residue, aided by the use of malt dust and nitro-chalk to assist in the breaking down of the materials. The results obtained by composting the three materials together, in long, narrow heaps, are proving very satisfactory, especially where nitro-chalk has been used. Allowing for labour, the cost of composting is not excessively high and a lot of good compost is made available for use in the various beds and borders.

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A further section of the Rock Garden, at the north end, which was originally built with Purbeck limestone, is now being cleared and reconstructed, using Sussex sandstone to conform to the general layout of the north end of the Rock Garden.

A considerable amount of material was supplied during the year for figuring in the Botanical Magazine. This included *Ranunculus ficaria* var. *aurantiaca*, a most interesting colour variation of the lesser celandine, which was the only one originally found in the field near Windsor amongst a batch of ordinary yellow flowered plants; *Vicia canescens*, originally raised from seed collected by Dr. P. H. Davis from plants growing on limestone scree in the Lebanon; *Felicia pappei* var. *gracilis*, so long known in gardens as *Aster pappei*; *Kudbeckia speciosa*, a very good late summer flowering plant from Eastern North America; *Convolvulus pitardii* var. *leucochnous*, a beautiful trailing plant, seed of which was collected and sent to us by M. Jean Gattefosse from Morocco in 1949. Other plants supplied were *Columnea x banksii*, *Rhododendron inaequale*, *Echium pininana*, *Luculia grandifolia*, *Caiophora tucumana* and *Hebe macrocarpa* var. *latisejala*.

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Although losses amongst the older trees continue, they are not so heavy as a few years ago. Altogether 10 large trees have been removed because of their dangerous condition.

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A newcomer to Kew—*Magnolia ashei*—produced its first flower during 1954. It is a deciduous species from N.W. Florida, closely related to *M. macrophylla* but flowering in a younger state and it should prove a useful acquisition.

BIRDS IN THE TEMPERATE HOUSE

Visitors to the Temperate House have sometimes asked "Is this the aviary?" and recently I was asked by a lady where she could see the parrots. Surprise is often shown when it is explained that all the birds seen and heard in the House are wild species which come and go at will when the ventilators are open. During 1954, five species nested in the House, viz., the House Sparrow, which is far too common and very destructive to the blooms of forced shrubs, the Blackbird, Robin, Blue Tit and Pied Wagtail. The last-named species built its nest in a box girder in the roof, while the Blue Tit chose a box which had housed an electric horn installed for air-raid warnings during the war. Mr. Wells tells me that in previous years Hedge Sparrows, Wrens, Chaffinches and a Song Thrush have nested within the House, and that domestic and Wood Pigeons, Starlings and a Tawny Owl have paid visits of varying duration. Linnets nested this year in the ivy hedge outside the House.

J. S.

FIFTY YEARS AGO

"THE SUCCULENT HOUSE (No. 5).

The renovation of the plant-houses at Kew, rendered necessary in some cases by decay, in others by their being ill-adapted for the healthy cultivation of the plants they contained, was commenced by the present Director in 1889. This year (1904) the Succulent House, built in 1854, was taken in hand by the Office of Works and, with the exception of the hot-water pipes and staging, the whole structure was taken down and replaced by a much lighter and more elegant house. The addition of a spacious "lantern" in the roof affords better accommodation for large plants and a more satisfactory arrangement for ventilation."—*Journal of the Kew Guild*, 1904.

1954 Note:—Towards the end of the year the Succulent House was cleared of plants in preparation for demolition. The new house is to be built without a "lantern." It will be constructed with fewer glazing bars, thus increasing the amount of light.

THE BOTANIC GARDEN, DOMINICA,

BRITISH WEST INDIES.

Horticultural appointments made to our tropical Colonies since the war indicate an awakening appreciation of horticulture by the Colonial authorities and their desire to provide adequately for the planting of parks, open spaces and roadsides. In some Colonies the task may be partly pioneer, with relatively few examples of plant behaviour to serve as a guide. In others, a Botanic Garden will facilitate choice and provide a reservoir of planting material of selected subjects. During a period of Colonial service which extended from 1924-1949 the writer served in five Colonies, in the course of which three Botanic Gardens came under his control. It is of the garden in Dominica, which was considered one of the finest in the West Indies, that these notes are written. They attempt an appraisal of the result of a pioneer effort of plant arrangement in the tropics which harmonised a comprehensive botanical collection to achieve a maximum decorative effect.

It can be stated briefly that the establishment of many Colonial Botanic Gardens took place towards the end of the last century, under the guiding influence of the Royal Botanic Gardens at Kew, which was responsible for supplying the men and planting material. Although emphasis was placed on acclimatising or assessing the possibilities of economic plants in a new environment, a fair proportion of the plants sent to those gardens were purely of botanical interest or mainly decorative in character. The gardens were usually given the best possible sites, permitting

a generous decorative lay-out, and situations favourable for the diversity of the subjects introduced, with areas for nurseries and plots for economic plants.

The problems faced by that intrepid band of pioneers sent from Kew to lay-out and maintain those gardens can well be imagined. These young Curators were without seasoned guides, such as H. F. Macmillan's book of "Tropical Gardening and Planting," on which to judge the potentialities of the exotics received chiefly from Kew as seeds or plants, and collected from all corners of the tropical and sub-tropical world. To the brief descriptions of many plants an instinctive or imaginative interpretation had often to be added. Of first importance was the question of perspective and sense of values, involving maybe a mental translation of plant effect and behaviour from the confines of the hothouse to the natural environment of the open spaces. The lesson of restrained use of the "common" and "colourful" had to be learnt, and the possibilities of the lesser known and often more suitable plants and trees discovered.

A merit of the Dominica Garden was the avoidance of a common and serious fault seen in other gardens, that is, the inadequate spacing of trees and shrubs due pardonably to mis-judgment, or, sometimes to a mistaken effort to achieve an early effect. After some years a thicket of mixed botanical specimens cannot be thinned effectively without serious loss.

The success of the garden was due to the late Mr. Joseph Jones, O.B.E., who took control of the lay-out in 1892 and remained in charge until his retirement in 1925. Many fruitful and happy hours have I spent in his company. The garden reached the peak of its beauty and development in the early 1920's and it is mainly the memories of this period which are recorded here. I am fortunate indeed to have these memories as the garden was shortly to suffer from a series of hurricane "blows" which effectively marred or battered its main features. A high wind in 1926 was followed in 1928 and 1930 by hurricanes of great violence. In 1928 the damage was such that it took the labour staff a week to clear a path through the main roads of the garden. The hurricane of 1930, of even greater intensity, caused further havoc, destroying the natural form of many trees and palms, particularly those originating from zones where evolution of type was not influenced by the need of resistance to high wind.

The original lay-out of the garden comprised about 44 acres situated under, and partly sheltered by, the steep slopes of a hill known as Morne Bruce, lying immediately behind the capital town of Roseau. It included an economic section about 10 acres in extent sited on the deeper alluvial soil at the foot of the hill. The remaining area of a gently undulating character included the ornamental section with its three main entrances, roads, lawns, botanical arrangement and pot nurseries. Later extensions on

the summit and over the far side of the Morne for nurseries and experimental plots brought the total areas to about 80 acres. A temperature varying between an average minimum of 75°F. and an average maximum of 85°F., together with an annual rainfall of about 77 inches, provided conditions sufficiently warm and moist to permit of luxuriant growth for most tropical species. The degree of latitude is approximately 15° 20' north. The botanical arrangement of the garden was combined skilfully with the ornamental lay-out, and displayed a proportionate blending of monocotyledons with dicotyledons to convey a fairly accurate picture of the vegetative background of most of the wet tropics. Not only were the environmental needs of the different species considered, but place was found for collective effect and display of the individual specimens. Considering the initial difficulties of assemblage and propagation, the result was a remarkable tribute to the skill and foresight of its designer.

GRASS.

For this garden it was fitting that artificial aids such as stone-work, metalled paths, and even flower beds, should be almost absent, and that the setting for its restful and evergreen appearance should be a reasonably well kept grass sward. The lawns were formed by a mixture of grasses, principally *Stenotaphrum secundatum*, *Axonopus affinis*, *Paspalum* sp. and the finer leaved Bermuda grass, *Cynodon dactylon*, planted to make the cricket pitches on the main lawn. Grassed walks and roads preserved the continuity of the scene and proved an economy in general upkeep. The main lawn, the finest expanse of grass in the Island, was bordered on two sides by a double avenue of the "rain" tree, *Pithecellobium saman*, which gave complete and pleasant shade to the crowds who came to this "Mecca" of the Island's sport, i.e., cricket, which incidentally was the only game permitted in the garden.

PALMS.

A collection of palms consisting of some 50 genera and over 100 species afforded abundant choice for decorative selection, and, for the avenue winding from the main gate to the roundabout linking the three main roads in the centre of the garden the palm selected was *Oreodoxa oleracea*, commonly known as the "cabbage" palm. Its stately trunk, bearing a magnificent crown of feathery fronds alike with its sister species the "Royal" palm—*Oreodoxa regia*, have made these palms the most popular of avenue palms. Its habit is uniform and it is easy to establish in most situations. To the fastidious it may seem to have been overplanted throughout the tropics, but this does not deny its worth. Of similar habit although considerably smaller, is the handsome palm from Mauritius, *Acanthophoenix rubra* which lined the northern boundary. This palm and an allied species *Archontophoenix alexandrae* make an ideal avenue palm for modest

settings. Three other palm avenues are worthy of note. The first formed by *Raphia vinifera* sloped from the main road towards the economic plots. This palm is the wine palm of West Africa where its bast fibres produce the Piassava fibre of commerce. The spacing of the palm and trunk height combined to ensure a pattern of graceful long pinnate leaves arched over the path, providing a vista of exceptional charm to which was added the beauty of the natural ferneries growing on the low fibrous trunks. Other *Raphia* spp. growing nearby were *R. pedunculata* from Madagascar and *R. taedigera* the "Jupati" from Brazil. The second avenue comprised three species of *Caryota*, viz., *mitis blancoi*, and *urens*. Caryotas with their bi-pinnate leaves are strikingly handsome, but at maturity when almost continually flowering and fruiting they tend to have a ragged appearance and therefore can be disappointing. In India and elsewhere, their flower spikes are tapped for "toddy" palm wine, although this process, and the destruction of palms for their "cabbage" or crisp and nutty flavoured hearts, is alas, the fate of many other (including rare) species of palms.

The finest palm avenue of all, which I have not seen equalled for effect, was formed by the tall growing, fan-leaved *Pritchardia pacifica* of Fiji alternated with *Euterpe edulis*, a graceful pinnate-leaved palm of tropical America which effectively masked the stems of the taller Pritchardias. Clumps of a dwarf growing palm of Southern China, *Rhapis flabelliformis*, appropriately flanked the entrance to this avenue. The two stately palm sentinels of the Emsall gate remain in my memory, one being the "Cohune" palm, *Attalea cohune*, of British Honduras, and the other *Scheelea excelsa* of Colombia. These are exceptionally large pinnate-leaved palms and somewhat similar in general appearance but readily distinguishable by the form and carriage of the spadix. Before proceeding to the invidious task of mentioning a few of the outstanding specimen palms I have to recall a group of different species planted in a small circular bed. Obviously well chosen for effect in their early years the later development of their individual habits had destroyed the symmetry of the setting. Least happy of all the fan-leaved palms was the "Coco-de-Mer," *Lodoicea sechellarum*, which was proving difficult to establish; maybe it needed the granite soil of its fabled forbears. On the other hand, other remarkable indigenous species from the Seychelles, *Stevensonia grandifolia*, *Verschaffeltia splendida*, and *Roscheria melanochaetes*, which I came to know more intimately later, had grown satisfactorily. For grandeur of leaf, prime specimens of *Sabal blackburniana*, *Latania commersonii* and *Washingtonia sonorae* were equalled by the "Talipot," *Corypha umbraculifera*. The "Talipot" in flower is majestic but its towering terminal inflorescence which emerges after a growth period of about 20 years or more, heralds the death of the palm. At the seed ripening stage high wind may cause this huge fruiting panicle to break at its base, a danger to be guarded against if

the palm is situated near a public highway. Other species of *Corypha* were represented by well grown specimens of *C. gebanga* and *C. elata*. Another spectacular specimen was the "Palmyra" palm, *Borassus flabellifer*, a palm of many uses. The 50 feet high specimen was notable for the way it retained its dead leaves which accumulated below the crown to give a compact, circular appearance to the whole palm top.

The popular and decorative Livistonas were well represented by the Chinese "Fan" palm, *Livistona chinensis*, the Java species *L. olivaeformis* which it closely resembles, and another Java species *L. altissima*, notable for its spiny petioles and scarlet berries. The word "graceful" is descriptive of all pinnate-leaved palms and in this group comes the genus *Phoenix* of which there were six species, all in the adult stage of growth. A large and well grown specimen of that popular greenhouse variety *P. humilis* var. *roebelinii*, on the lawn near an entrance gate always attracted attention. There were many flourishing trees of the Date palm, *P. dactylifera*, so widely used for decorative effect in the Middle East. They bore good crops of dates. Unfortunately the dry season and time of ripening of the fruit did not coincide.

For general decorative use either as pot plants, planted as specimen clumps, or as a hedge to form a high and effective boundary screen, the "cane" palm of Mauritius, *Chrysalidocarpus lutescens* is unsurpassed. Excellent examples of such uses existed in the garden.

The scope of this article precludes mention of the many other palm species of beauty and even greater botanical interest.

TREES.

Proceeding to the description of notable dicotyledonous trees, mention has been made of the roundabout in the centre of the garden where many might have planted a large showy bed of flowering plants. Instead the choice fell on one of the most graceful trees to be seen in the garden, *Ficus benjamina*, otherwise known as the Java "fig." The comparatively low symmetrical spread of its slender light-coloured branches, bearing small dark green leaves, and anchored by its aerial roots, crowned the site with light and graceful greenery. Light pruning sufficed to keep its spread within the 100 ft. diameter of the circle. The value of mahogany as a shade tree was demonstrated by an avenue in which *Swietenia mahagoni* alternated with its larger-leaved relative *S. macrophylla*, the source of "Honduras" mahogany. The pendulous branching, particularly of the smaller leaved species, completed a canopy in which overhead and side shade was effectively combined. Notable large trees of decorative interest included the silk cotton tree, *Bombax malabaricum*, a stately deciduous tree developing its large bright red flowers when leafless, *Catalpa longissima* with its crown of very conspicuous bright orange flowers, and *Tabebuia pentaphylla*, recognised as

one of the finest flowering trees in the garden. The presence of a large tree of "Ylang Ylang," *Cananga odorata*, native of the Philippines, with its continuous crop of heavily scented, greenish-yellow flowers, was a major contribution to the fragrance of the garden. Honours for total spread, combined with height and bulk of timber and leaf, were shared by *Ficus elastica* and *Ficus altissima*. The encroachment on lateral space in which these monsters were assisted by their aerial and buttressed roots was, however, drastically checked by the hurricanes which reduced them to a quarter of their original size. The possibilities of Eucalypts had not been neglected and over 70 species had been assembled and planted as a collection on the Morne. A few of the more important species had been used unobtrusively in the garden, including a row of *Eucalyptus patentinervis*, the "bastard" mahogany of Australia which had been planted along one of the garden boundaries.

Of medium sized tropical flowering trees the collection was almost complete. Pride of place must be given to the successful establishment of that superb tree *Amherstia nobilis*, whose cultural needs as regards light, shelter and drainage had been correctly assessed in the position it enjoyed on the lower slopes of the hill, where five or six young trees served to illustrate its claim as the "Queen of Flowering Trees."

The other "Queen" was also present, that is the "Queen Flower" or "Pride of India," *Lagerstroemia flos-reginae*, which flowered in the spring bearing large panicles of pinkish-mauve flowers. The cream of the flowering cassias, that most popular tropical genus, were distributed throughout the garden including the "apple blossom" *C. grandis*, the "pink" *C. nodosa*, the "laburnum" *C. fistula*, *C. emarginata*, *C. siamea* and *C. sieberiana*. No account of tropical flowering trees would be complete without mention of the "Flamboyante" or "Golden Mohur of India" *Poinceana regia*. Perhaps no tropical flowering tree has been more extensively used, and perhaps abused. There were comparatively few specimens in the garden, but many had been planted on the hill-top above, where in season their array of scarlet-orange flowers formed a mass of colour sufficiently removed as not to disturb unduly the general harmony of the garden below.

The fruits of many tropical trees are most extraordinary both in size and shape, and an unfailing source of wonder when seen for the first time. A few outstanding examples in the garden included the "Cannon Ball" tree, *Couroupita guianensis*, a tree belonging to the *Myrtaceae*, bearing generously on the trunk from the base upwards long woody flowering stems with large red flowers and fruit of brownish colour (which rarely seemed to drop) the size of large cannon balls. There were at least 150 fruits on the tree at the same time. Equally attractive was *Parmentiera cerifera* (*Bignoniaceae*), commonly known as the "Candle" tree because of the long yellow fleshy fruits produced prolifically on

the trunk and branches. Appropriately growing near the "Candle" tree and again illustrating divergence of fruit shape and the habit of certain tropical trees to produce their inflorescences on the oldest wood, were two species of *Averrhoa*, *bilimbi* and *carambola*. Both are small trees about 15 to 20 feet high producing large crops of acid fruits of interesting shape, the bilimbi being circular, about 3 inches long and 1 inch in diameter and greenish yellow. The carambola is proportioned and angled like a beech fruit and about 3 to 4 inches long, ripening a golden bronze colour. We found they lacked flavour made into jam. Another spectacular fruited tree is the "Sausage" tree, *Kigelia pinnata*, a sacred tree from tropical Africa. The woody sausage-shaped fruits about 2 feet in length and 5 to 8 inches broad are suspended on cord-like stalks about 4 feet in length. The long stalked panicles of purplish bell-shaped flowers arise from the older branches. The slow ripening and long retention of the developed fruits ensured a constant exhibit of considerable numbers of fruits. Further additions to the list of spectacular fruits must necessarily be confined to mention of the West Indian "Calabash" tree, *Crescentia cujete*, which produces an enormous fruit whose woody shell is used as a liquid container for many purposes. Of the smaller trees and shrubs of interest and beauty I recall especially a young tree of *Warscewiczia coccinea* the "flame" tree of the West Indies. Its large red-coloured inflorescences made it one of the most showy plants I had ever seen. Another small deciduous tree whose flowering always attracted attention was the Orchid flower tree, *Monodora tenuifolia* (*Anonaceae*). Its yellow-brown spangled sepals were beautifully shaped to resemble orchids. Bauhinias were well represented by six species, perhaps the most attractive being the South African species, *B. galpinii*, a somewhat procumbent shrub with brick-red flowers. There were five species of *Ixora*, some used independently in beds on the lawn. The most striking was *I. macrothyrsa* whose large clusters of orange-red flowers make it the most showy of the whole genus. Browneas were represented by three species, and *Hibiscus* by *rosa-sinensis* and the white species *H. waimae*. Several beautiful *Hibiscus* hybrids raised by Dr. Harland in Trinidad were introduced during the 1920's. They markedly improved the decorative value of the genus. Brunfelsias were represented by the yellow, scented species, *B. americana*; and rubiaceous shrubs by *Rondeletia speciosa* with its orange-yellow flowers, *Portlandia grandiflora*, *Randia maculata*, and *R. macrantha*, carrying in profusion long, tubular white flowers.

The resplendently bracted mussaendas, *M. erythrophylla* (scarlet), *frondosa* (white), *luteola* (yellow); *Duranta plumieri*, with its simultaneous show of orange berries and purplish blue flowers; the "Temple" flower or "Frangipani," *Plumieria alba*; the "Parasol" flower, *Holmskioldia sanguinea* and *Acalypha hispida*, all contributed to the decorative plan.

Of foliage trees and shrubs there were imposing beds of *Pandanus utilis*, the Screwpine, *P. pacificus*, and *P. sanderiana* with its striped golden and green leaves; two handsome specimens of the fan-shaped "Traveller's" tree *Ravenala madagascariensis*; several species of Bamboos, notably the giant *Dendrocalamus* sp. and the fruiting Bamboo, *Melocanna bambusoides*. All the popular varieties of *Codiaeum* (Crotons), *Acalypha*, *Aralia*, *Cordyline* and *Panax* were present, some used as hedges, others in beds, etc. *Cycadeae* was represented by fair sized specimens of *Cycas seemannii*, *C. revoluta*, *Zamia* sp. and *Encephalartos hildebrandtii*, and the succulents by representative species of *Cereus*, *Agave*, *Aloe*, *Sansevieria*, *Opuntia* and *Euphorbia*. The following specimens of *Coniferae* were well established: *Araucaria bidwillii*, *A. brasiliana*, *Cupressus glabra*, *Pinus sinensis*, *P. bahamensis*, *P. longifolia* and *Juniperus bermudiana*.

FLOWERING CLIMBERS.

It is appropriate that this account should end with a brief survey of the flowering creepers and climbers with which the collection was so richly endowed. To find a niche for the growth and display of each species among so many could have been no easy matter and it was the effective and natural handling of this problem which was remarkable. Amongst the most attractive climbers were *Combretum laxum*, with its masses of bright scarlet flowers and *Concea tomentosa*, with its large loose sprays of minute white flowers and large velvety bracts of a delicate carmine colour and a flowering period extending over several months. In the garden there were two forms, one with a glabrous dark green leaf and the other with a hirsute leaf of mealy appearance. *Odontadenia speciosa* rambled over a nursery shed, producing in its season a handsome crop of pinky yellow, scented flowers. Clambering over the pillars at the Town gate entrance was the brick red *Bougainvillea*, then a comparative rarity owing to difficulty with its propagation. Its showy relative, "Mrs. Butt," despite its then recent discovery was well established in the garden, one notable specimen supported by the trunk and branches of *Terminalia catappa* and others planted singly on the lawn.

Trees were freely used as supports for creepers and climbers, one unforgettable example being *Beaumontia grandiflora* with its display of handsome large white flowers rambling through the branches of *Catalpa longissima*. Another was *Petraea volubilis* in its white and blue forms emulating the climbing capacity of their species growing in the Island's forests. The creeper *Bignonia unguis-cati* emerged from the higher branches of its supporting trees to send down its long trailers of golden flowers. That tropical favourite *Antigonon leptopus* or "corallita" in the double, single pink, and white forms, were used to adorn fences or ramble over tree stumps. In this garden the large yellow-flowered *Allamanda cathartica hendersonii* reached its optimum of growth and bloom as did also its more delicate, mauve-coloured sister

species *Allamanda violacea*. The luxuriant and free flowering *Quisqualis indica* rambled with the freedom and garlanding effect of *Clematis vitalba* in this country.

The garden was not encumbered with what may be termed the expensive refinements of plant houses, ferneries and flower beds. It sufficed without these aids to become famed throughout the West Indies, the Island's main attraction for tourists and an extensive living reference collection for the visiting botanist. The purpose of the garden was to cradle and direct the development of the Island's Agriculture and it was to this function that the energies of the Curator and his staff were mainly applied. Improvement of existing crops by experimentation and demonstration and the introduction of new crops modelled the lines on which an Agricultural Department was later evolved. This work, no less pioneer or successful than the establishment of the botanic garden, still bears the stamp of the garden's first Curator, Mr. Jones. An account of his work, concerned with a wide variety of tropical fruits and the Island's staple crops, viz., Limes and Cocoa, belongs to another chapter.

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PLANT QUARANTINE AT KEW

Few countries depend upon their native plants to supply their needs. Almost all rely, in part or in whole, on plants which have been brought in at some time or other from a different part of the world. The vast wheatlands of North America, the citrus groves of California and Florida, the coffee plantations of Brazil, the potato fields of this country, the cacao farms of West Africa, all owe their existence to the introduction of plants from other territories at the hands of men.

The early movements of many of these plants, as for example the coming of wheat and oats to this country, are hidden in the remote past. But other introductions, such as the transference of sugarcane to the West Indies or of cinchona and para rubber to the East, are more recent and well documented. There is a spice of romance and adventure associated with many of these records, and the account of H.M.S. Bounty, on her errand to bring bread-fruit trees to the West Indies from the South Seas, provides as thrilling a tale as any could wish. We need hardly remind ourselves of the outstanding part which has been played by Kew in the last century or so in promoting the transfer of useful plants from one territory to another.

It might perhaps be thought that the days of plant introduction are just about over and that the useful crop-plants are by now well distributed. But this is by no means true. There is still a need for further introductions of economic plants, and these are likely to be made for a long time to come. An example may illustrate how this is so.

A striking feature of the cacao of the main producing area of Nigeria is the uniformity of the trees. Although propagated by seed, they possess almost the sameness which we associate with clonal plants. The story of the early introduction of cacao into Nigeria is not altogether clear. One account has it that a Nigerian who had voyaged to the island of Sao Thomé off the West African coast saw there the cacao of Brazilian origin introduced earlier by Portuguese colonists. On his return to Nigeria this man brought back two or three pods and grew a few trees from which he sold seed to his neighbours, and they to others. As a result, over the space of years, a vast area of cacao has been planted, all derived from this man's few seeds, and the characters of this cacao are those which were contained in the make-up of the original tree or trees from which his seed descended. The plant-breeder of to-day, given the task of creating cacao with higher yield, or greater vigour, or drought-resistance, can do little or nothing with this cacao alone, because the characters for which he is seeking were lacking from the original trees and are not to be found within the Nigerian cacao population derived from them. To obtain these characters he has to look elsewhere, preferably to the country of origin of cacao where the widest variation in the population is likely to be found. This was in rough terms the purpose of an expedition which went to the headquarters of the Orinoco and Amazon in Colombia in 1952 seeking new and potentially valuable material of *Theobroma* and related genera for the cacao-breeders in Trinidad and West Africa.

Thus, if only to supply the plant-breeders with a wider range of materials on which to work, the need for plant introductions will continue. While the importance of securing this new material becomes increasingly realised, there is at the same time a rising apprehension of the dangers attached to the movement of economic plants from one territory to another. Cacao in South America suffers severely from witches-broom, a disease which, if it should enter West Africa, might greatly reduce the production there, now amounting to two-thirds of the world's supply. West Africa is already struggling with Swollen Shoot, a virus disease of destructive nature with which no other territory wishes to be afflicted. The position is similar in other crops. Banana has its wilt or Panama disease, present in many tropical countries, but there are also more local ones, such as the virus disease Bunchy Top, not yet widely distributed, but threatening destruction to the important banana-growing areas if it should spread thither.

The spread of diseases and pests into new districts and countries is most easily brought about by the movement of plants. Numerous instances might be cited in which plant material carried into a new country has brought with it pests and diseases hitherto unknown in that place. Against this undesired entry of pests and diseases into some countries there has been raised the barrier of plant quarantine. It may take various forms according to circumstances. In some instances there is a prohibition on the movement of plants because the attendant risks are considered too great. Thus no plants from South America or the West Indies are permitted into Nigeria for fear they may carry on them the spores or mycelium of the witches-broom fungus whose entry might cause such a calamity.

A second form of quarantine, which may be used in other circumstances, is to hold the plants for some time in isolation, separated from others of their kind and subject to frequent inspection for pests and diseases. If at the end of a suitable length of time they have shown no sign of disease, they may be allowed to complete the journey to their new country. This is effective against most troubles, though there may remain a small risk from some which are themselves too small to be seen and which may produce no obvious sign of ill-health in the plant, such as some mild viruses and possibly eelworms in small quantity.

To revert again to our example of cacao, we can see that the problem is to find a means of supplying the plant breeder's reasonable request for planting-material from South America without incurring any risk of introducing new pest or disease with the material. What form of quarantine will be effective and how can it best be applied? It is here that Kew is able to help. With money provided by Colonial Development and Welfare a glass-house was built in 1951 which, along with an earlier house built with Empire Marketing Board funds, is used as an isolation ward for plants in transit. In this house, which is well heated and provided with screening to check the entry and exit of insects, plants are held under observation for such time as is considered necessary.

When the plants can be propagated vegetatively without undue difficulty, an additional precaution is taken. The plants, when received and potted up in the house, are encouraged to make growth of new shoots. From this new growth cuttings are taken and rooted, and it is these daughter-plants which are sent to the new country. Thus, whenever possible, the actual plant-material produced in the one country is not sent on, but plants raised and grown in quarantine at Kew. These plants are examined before despatch by the Director of the Commonwealth Mycological Institute and are accompanied by his certificate that no sign of harmful disease was seen on them. By these means the risk of spreading pest and disease during the introduction of new plant-material is reduced so far as this can be done.

It may perhaps be asked why this should be done at Kew where these tropical plants are grown under unsuitable conditions of fog, smoke and cold. Why not a nice tropical island somewhere, where suitable temperatures are provided and no stoking of the boilers is necessary? This has its attractions and doubtless there would be little difficulty in finding willing student-gardeners to put in some time there. One good reason is that there is no tropical island which can rival Kew in its nearness, measured in time, to so many countries which may need this form of assistance. For from Kew, or at least from nearby Heathrow, the planes come and go constantly, winging their way across the seven seas and to the most distant continent. The reality of this was brought home to the writer three years ago when planting in a cacao nursery in West Africa young plants which had left the quarantine house at Kew 48 hours before. Wrapped in damp moss and polythene they travelled splendidly and, before they knew where they were as one might say, they were established and growing roots in West Africa.

Since the quarantine house was opened, cacao has occupied most of the space. The first collection included some of the outstanding trees selected on the estates of Trinidad by the Imperial College of Tropical Agriculture, the well-known ICS series. To these were soon added other plants from the Imperial College originally collected on the Upper Amazon and possessed of useful characters of vigour and early productivity. Rooted cuttings of these went in the first place to the Gold Coast and Nigeria and, during 1954, to help new developments in cacao-growing in Malaya, Fiji, and Ceylon. Another larger collection was received late in 1954, products of the 1952 collecting expedition to Colombia. This includes seedlings of other species of *Theobroma* and of the related genus *Herrania* bound for West Africa.

There has been a two-way traffic in bananas through Kew. Plants collected in East Africa were held in quarantine before being added to the banana collection at the Imperial College in Trinidad. On the other hand, cultivated varieties from the West Indies have been propagated for despatch to Queensland, the Gold Coast, and the Cameroons. Rubber has had a place in the house but its growth under artificial conditions has been hardly satisfactory and its passage through Kew has been suspended. While it was being grown, a successful means of propagating *Hevea* by cuttings was shown. Other crop-plants which have been grown recently, though not necessarily under the same form of quarantine, have included ipecacuanha plants for Nigeria, Malaya, and British Honduras, sultana grape-vine from Cyprus for trial in St. Helena, and disease-resistant varieties of cotton from Uganda and the Sudan, from which seed was sent to Cyprus.

The list of countries which have received, or are soon to receive, planting-material from quarantine at Kew, including Australia, Fiji, Malaya, Ceylon, Nigeria, Gold Coast, Cyprus,

St. Helena, Trinidad, British Honduras, clearly suggests that the call for plant introductions is as great as ever. It also serves to show that Kew, in partnership with the Colonial Office in this Welfare and Development scheme, remains active in assisting the supply of useful and economic plants to the far-flung countries of the Commonwealth.

T. A. RUSSELL.

THE ECOLE NATIONALE D'HORTICULTURE

Before coming to Kew the writer studied at the School of Agriculture at Sutton Bonington, which has an English-French student exchange scheme, and, although circumstances then prevented him from going to France, he was fortunate to be able to join a party of Exchange Students at the Ecole Nationale d'Horticulture for nine weeks during the late summer of 1954.

The gardens, buildings and laboratories of the Ecole Nationale d'Horticulture are situated in what were the original kitchen gardens of the world famous Château at Versailles. The gardens were laid out by La Quintinye in the time of Louis XIV and, except for the addition of buildings and greenhouses, have altered little in plan since then. The whole area of 26 acres is divided by high walls and magnificent rows of cordon and espalier fruit trees into "carrés" or squares in which are grown vegetables and flowers. Whilst the lecturers at Versailles freely admit that it is impossible to demonstrate the large scale practices of commercial horticulture in such a restricted space, their teaching is designed to stress the fundamental principles of this aspect. However, to alleviate this disadvantage they plan to purchase a further 170 acres outside Versailles for utilisation not only for commercial cropping but also for research experimentation.

THE EXCHANGE STUDENTS.

In common with some of our universities and horticultural colleges, the Ecole runs an exchange scheme for students during the summer vacation. In 1954 students came from as far afield as Tunisia, Switzerland, West Germany, Holland and England. During the week they worked in the various sections of the gardens and on Saturdays organised visits to nurseries, market gardens, seed firms, public parks and research stations helped to complete an overall picture of horticultural practice in the Paris region. One or two coach trips extending as far south as the Loire Valley illustrated the diversity of soils and crops of some of the other parts of France.

HORTICULTURAL TRAINING AT THE E.N.H.

The E.N.H. is the only college in France to specialise entirely in horticulture, although some of the Agricultural Colleges include

lectures on horticultural crops specific to their own area. As a result of this the number of applicants for the 40 places, which are open annually, is very large. The competitive entrance exam. is comparable to our General Certificate of Education at Advanced Level; candidates are also required for oral examination and to supply evidence of previous experience. The three year course allows for greater emphasis on the practical subjects, although the standard of the Applied Sciences is not comparable to that of our universities. The latter fact is not entirely surprising since the E.N.H. is an independent college without the scientific facilities of a university, and horticultural research in France was retarded by the German occupation. However the laboratories were well supplied with modern equipment and the workshop contained a most comprehensive collection of metal and woodworking power tools.

Successful students reaching an overall mark of 60% in their final examination are awarded the qualification of "Ingénieur Horticole," whilst those attaining only a lower grade receive the "Diplôme." Unfortunately, this high standard encourages so-called "parrot learning" and the insistence of the lecturers that notes should always be taken in one specific way intensifies this still further. Apparently this marked contrast to our teaching methods, in which individual thought and learning is encouraged, is by no means restricted to horticultural education. The French students at the Ecole displayed a singular lack of interest in such things as their native flora and less common shrubs and alpiners.

In addition to the course in General Horticulture there is also one of a more specialised nature on Landscape Architecture. Lectures on the horticultural crops and decorative plants of the Mediterranean regions are given for the benefit of the students from the South of France and North Africa.

FRUIT.

Except for a limited number of bush trees all the fruit at the E.N.H. is grown by intensive methods: these include the more widely used forms such as the cordon, vertical cordon, espalier and fan trained trees as well as the newer "l'arcure" and "losange" systems. In every case the training is meticulous and the pruning, which is mainly of the Lorette method, most carefully carried out. These facts coupled with a fertile soil, modern spray programme and favourable climate, produce high yields of top grade apples and pears.

It is of interest to note that the East Malling selection of apple rootstocks, especially M.II, M.V and M.IX, are used although very few of our commercial varieties of apples are grown. There is little demand for culinary fruit in France and most of the production is for dessert purposes. Some fruit is used in the jam trade and many different fruits are used in the manufacture of the diverse liqueurs and wines of France, for instance, nearly all the blackcurrants are converted into the aperitif "Dubonnet"!

Since the war a series of refrigerated cold stores have been built at the E.N.H. These are in constant use from mid-August to late spring for retaining the fruit until it is ready for sale at Les Halles, the Paris Market.

VEGETABLES.

Thanks to a deep and fertile but at the same time well drained light loam, excellent quality vegetables are grown at Versailles. Carrots and salad crops aided by frequent irrigation mature remarkably quickly. A large area is devoted to frame culture with modern steel window type lights. Somewhat surprisingly the classic hot-bed system of French gardening is not used although this is, no doubt, due to the present shortage of farmyard manure. Very large acreages of outdoor tomatoes are grown in the Paris area although the French do not appear to have our knowledge or ability in producing tomatoes under glass. There are, however, no outstanding differences between the methods of vegetable culture in England and France; as will be seen from catalogues and text-books on both sides of the Channel, we are mutually dependent for many of the best varieties of vegetables.

GLASSHOUSE AND CUT FLOWERS.

Cultural practices in the glasshouses at the E.N.H. and many of the nurseries are disappointing, although due to the favourable light conditions, the results so obtained are often fair. Composts are, by our conceptions, crude, generally consisting of a mixture of leaf mould and unsterilised loam, and without the incorporation of peat, sand or fertilisers. Knowledge of potting, watering and ventilation are also without scientific basis.

During the summer more than two-thirds of the one acre of glasshouses at the Ecole are devoted to the production of indoor foliage plants, which are becoming increasingly popular in France. Out-of-doors several "carrés" are used as plunging beds for Hydrangeas and Azaleas, Primulas, Cinerarias and Cyclamen are kept in unheated frames until the onset of winter.

Of the summer cut flowers, Gladioli, Dahlias and Carnations enjoy a wide sale. Chrysanthemums are regarded as flowers of mourning and, as a consequence, it is only the white varieties which are normally grown.

DECORATIVE HORTICULTURE.

Aided by the high incidence of sunlight the bedding plants are of excellent quality and the planning and colour schemes are nearly always very pleasing to the eye. The widespread use of Bananas as centre plants, and of Lantanas, Hibiscus and *Plumbago capensis* as standard plants is of note. The lawns are, however, of poor quality due to the hot dry summers, and little use is made of flowering shrubs. The rock gardens in both the E.N.H. and the Jardin des Plantes are neither well designed nor

carefully maintained. The formal avenues in the parks and boulevards are magnificent and the French have undoubtedly mastered the art of pruning and training their trees.

CONCLUSION.

In this brief résumé it will be clearly seen that we have much to learn from our neighbours across the Channel, although at the same time the converse is also true. The writer is now of the confirmed opinion that the opportunity of working abroad should be taken by all students at some time during their training. Not only does one acquire new stimulation of ideas and increased practical knowledge in many horticultural subjects, but the mutual understanding of other people's ways of life and trends of thought is a thing highly to be desired in the present-day world.

E. WORRAKER.

CHRONICLE OF AN OLD KEWITE

Being Extracts from the Memoirs of William Dallimore, sometime Keeper of Museums and upon whose suggestion *The Kew Guild* originated.

PART I.

I had been led to expect a good deal from Kew as general accounts had been of a praiseworthy nature. My mother first described the gardens to my brothers, sisters and me when we were very young. She had formed a very favourable impression from visits paid during her earlier years. Once I became aware of the possibility of young gardeners finding employment at Kew I made up my mind to apply for entrance immediately my age made such a venture possible.

Thus I had trained myself to expect something very wonderful in the way of a well laid out and well kept garden, replete with fine plant houses, and everything in the place lovely. As it happened I could not have seen the gardens under more depressing conditions and disillusionment stared me in the face.

I left for Kew early in the morning of January 31st, 1891, and after a journey extending over four hours in a hard-seated, straight-backed, unheated third class railway carriage, arrived at Willesden Junction between one and two o'clock. On changing to the North London Railway my drooping spirits were further depressed by the journey to Kew Bridge in a long, open end to end, third class, anything but clean carriage with wooden seats. Nor was I favourably impressed by my first sight of the lodgings one of my Chester friends had engaged for me. Three other student gardeners lodged there, but the rooms were untidy, dark and dingy, and their frowziness was matched by the landlady.

There were five men at Kew whom I had known at Chester. As I had been most familiar with Ernest Hemming, I determined

to visit him at his work in the Temperate House during the afternoon, and find out something about the observances expected from student gardeners.

I entered the gardens by the Main Entrance. It was a dull, damp, messy kind of day, and everything looked dirty and dismal. The Aroid House—the first seen—was not inspiring; it looked as though it was covered with slates instead of glass, but it was not until I saw the Ferneries, Greenhouse, Succulent House and T-Range that I fully appreciated the dirt. The glass had not been washed after the fog and it was black with filth. To make things worse the Ferneries were wholly, and some of the other houses partly, glazed with green glass, and most of them needed rebuilding. I did not know then what a harmful effect London fog has on plant life, and was not prepared for the many leafless and flowerless plants that should have been in first-rate condition. Neither did I know of the scheme of reorganization that was to transform the whole face of the establishment within the next few years. As I made my way to the Temperate House the filthy state of the leaves of evergreens was noticeable on all sides, while small pools of water collected on the paths were covered by a black film.

I found my friend in the Temperate House and he arranged to meet me in the evening when he would make me wise to Kew requirements. On keeping the appointment he introduced me to three other student gardeners, John Aikman, William J. Tutcher and Charles H. Curtis, three men whose life work did much to uphold the honour and tradition of the Royal Botanic Gardens, Kew. My guides took me to Richmond and during the walk to and fro taught me a lot about the Gardens and what was expected from Student Gardeners, which officials were easy to get on with and which were difficult. I was warned that it would be as well to avoid as far as possible the company of certain men, and others were mentioned who were trustworthy. I found that tradition ranked high and that whatever happened the good reputation of the Gardens must be maintained.

I spent the afternoon of my first Sunday in the Gardens mostly in the plant houses and after seeing so many strange plants my short-comings loomed large, neither was I reassured by some of the Student Gardeners I met. My very youthful appearance compared badly with two men who wore full beards, and others who had heavy moustaches and side whiskers. I had brought a razor but had no real use for it, and for a long while I was referred to as "The Boy."

I felt very nervous when I paid my preliminary visit to the Curator's Office on Monday morning. I was afraid that I might have to undergo a strenuous questioning and be found wanting. However, Mr. Granger, a very kind, elderly man, who in addition to being timekeeper and storekeeper, worked in the Curator's Office, reassured me to some extent, and on meeting the Curator.

Mr. George Nicholson, I found him to be a very charming man who seemed more concerned about my lodgings and comfort than my professional ability. After a short talk he sent a messenger with me to the office of the Assistant Curator, Mr. William Watson, who, after a little questioning about my past work, particularly while I was at Chester, told me that I should prove to be useful and sent me to work in the Palm House.

Tom Jones, a man I had lived with at Chester, was subforeman of the Palm House. He was a good man to get on with but I did not take kindly to the work. I was given a section of the house to look after, and apart from watering and damping down, much of the work was sponging plants, with an occasional job connected with the annual reconditioning of the nearby Water Lily House. Six men worked in the Palm House and a good deal of our time was spent in waging war against mealy bug and scale insects; the large house and large plants made cleaning a long and monotonous occupation.

My first knowledge of the Director, Mr. (afterwards Sir) William T. Thiselton-Dyer, was gained as we were leaving the Palm House one day for our mid-day meal. We were walking together, some talking, others smoking, when suddenly pipes were thrust into pockets and conversation hushed. I very naturally asked the reason for such strange behaviour, and was told, *sotto voce*, to "Shut up." Presently we passed a rather slender, bearded man wearing riding breeches, brown velvet jacket, tweed waistcoat and Tyrolèse hat, and smoking a cigarette. He took little notice of us, but after he had passed I was informed that he was the Director, that I must be very careful what I did when he was about, and that he rarely spoke to a young gardener. Moreover, he was the only member of the Staff who was allowed to smoke in the Gardens.

My early impressions of the rest of the higher Staff, or those I met, were formed directly or from hearsay, as follows. Dr. (later Sir) Daniel Morris, the Assistant Director, a person of studious appearance, too absorbed in his various activities to be able to pay much attention to young gardeners but informative when he did unbend. George Nicholson, rather awe-inspiring by reason of the high esteem in which he was held throughout the country, but very likeable as he became known, and always glad to impart his knowledge to young men when opportunity occurred. He had a very wide knowledge of plants and specialized on hardy trees and shrubs. His *Dictionary of Gardening*, published between the year 1884 and 1887, was looked upon almost with reverence by the gardening fraternity. Although he was affectionately referred to as "Old Nick," he was on the right side of fifty. William Watson impressed me as being an alert and very ambitious man of thirty odd years of age. He had direct control of most of the young gardeners and was helpful, particularly in his position as Chairman of the Mutual Improvement Society. He was the

medium of communication between the Student Gardeners and the Director, and his opinion, at that period, had far-reaching effects. Young men who showed gardening ability usually got on well with him, but he had little tolerance for incompetency. He was known as "W.W." amongst the men.

William Truelove, of the Arboretum, was a big, stout man of leisurely gait, nearing the age of retirement. I saw him only when his Sunday duty coincided with mine. He was referred to by the labourers as "Father," his very small wife's term of endearment. Daniel Dewar, of the Rock Garden and Herbaceous Department, was a rather excitable Scotsman who later became Curator of Glasgow Botanic Garden. I knew little of him. Frank Garrett, in charge of the Decorative Department, had the reputation of being a first-rate gardener with a good eye for colour effects. He was rather dour and appeared to be morose until one knew him. However, he looked after his young gardeners and, perhaps, took more trouble than others in training them. William J. Bean, of the Temperate House, was the youngest foreman. My first remembrance of him is of a tall, well-built, quiet young man, reputed to be studious, a mighty hitter at cricket, a good disciplinarian and very attentive to his duties. I saw little of him during my early months at Kew, but a good deal afterwards.

The Keeper of the Herbarium, J. G. Baker, lectured to the young gardeners on Oranography and Systematic Botany. He was a Quaker, tall and thin, with one or two queer mannerisms that added interest to his rather dull lectures. One was that he walked to and fro on the platform as he lectured, with his right hand thrust into his trousers pocket. When he wished to emphasise a point, the hand was pushed down to the limit and then given a sudden upward lift that drew the trouser leg above the top of the boot, exposing a badly gartered sock. He had unruly, iron-grey hair which, fairly tidy at the beginning of the lecture, gradually deteriorated until it became decidedly ruffled with one lock hanging over his forehead. His lecture was continued as he passed through the room to leave, and only ended by the closing of the door.

Dr. W. B. Hemsley was of interest to us all as he had risen from Student Gardener rank to become a Fellow of the Royal Society. N. E. Brown lectured to us on Geographical Botany. He was a little man, very fearful about his health, could not stand an open window, very serious in all his undertakings, a good lecturer who could hold our attention beyond the prescribed hour and most conscientious in marking our note books. He was very thin and reputed to be delicate, though in the end he lived to a ripe old age. He took a lively interest in the young men and always did his best to explain matters in which his pupils showed interest. He sometimes stayed as much as half an hour after lectures to elucidate a difficult point. John R.

Jackson was known to us all as he lectured to us on Economic Botany, a subject that made a strong appeal, although the lectures were given under unsatisfactory conditions. We were taken round the museums, from case to case, while he gave us information about the more important subjects. During the time we stood up taking notes on the substance of what he told us as best we could.

William Granger was held in high esteem by all the young gardeners and in meeting difficult situations he could always be relied upon to give sound advice. He couldn't bear to see young men missing time in the morning and was known to rush across the road to nearby houses, and wake men who he thought might be late. He admonished late-comers with the words, "Now, my boys, now my boys, you really should try and get up a few minutes earlier." He was well over 60 and retired in 1893 after 43 years' service at Kew. Before his employment at Kew he had served in the Royal Navy, and had been postman for Queen Victoria when she stayed at Osborne House or was on board the Royal Yacht at Cowes.

The only other member of the Staff with whom we had much to do was George Badderley, Preparer in the Museums. We made his acquaintance during the cricket season as he invariably pegged and bound our cricket bats free of cost.

I have heard people who had not worked at Kew and had, perhaps, been familiar with one of her unworthy graduates, decry the place as a training ground, saying that the men did no real work and that their practical knowledge left much to be desired. They would have altered their opinion had they worked there. The terms of employment did not err on the generous side and they operated very much in the interests of the employer, but no one could complain as every applicant was furnished with printed particulars of the conditions of employment, and rules for his guidance before he was admitted. If he did not like the terms he was not bound to engage, but there were important items that were detrimental to his interests that he could not envisage. One was the extra cost of living in a village on the outskirts of London, compared with country life. Another was that men very naturally thought that on entering an establishment such as Kew on a subsistence allowance in lieu of full wages, to compensate for the expense of completing their horticultural training, some trouble would be taken to teach them work that they had not already learnt. Instead of that the men were given the work in which they seemed to be most competent and would need least supervision, and had to take charge of collections of plants with a minimum of tuition. The method worked well for those who had been fortunate enough to receive a good general training during their earlier days, but it was less satisfactory for those who had been less well trained; these had less chance of being given charge of the most coveted plant houses. However, the sensible men

made the best of things, put up with inconveniences, and took advantage of every facility offered. A few cried for the moon and when they found it beyond their reach failed to settle down. These men went away and gave outside people a poor impression of Kew and Kew men. But such men are found everywhere. No doubt there was a very great deal to learn at Kew, but the men had to sort out most of it for themselves.

The Director wrote in the first number of the *Journal of the Kew Guild*, in 1893: "As you know, we do not 'coddle.' We treat our young men as 'men' and expect them to work out their own salvation. We wish them to be manly, self-respecting and strenuous. We put, with the help of the Government, what help we can in their way, and leave them to make an intelligent use of it." That is exactly how I found the place operating in my early days, except that men were not always encouraged to "work out their own salvation" if their salvation did not conform to some other person's interests, neither was it possible to get beyond a certain point in working out one's salvation. A man was expected to know the rudiments of gardening and to have enough common sense to apply his knowledge in any direction required, or if he was not sure about anything to seek the necessary information from someone else.

In 1891, with one exception, the young gardeners worked in the plant houses, the exception being a man employed in the Rock Garden. Newcomers were usually sent to one of the large houses such as the Palm House or Temperate House, in each of which there were several men. They were tried out in those places and drafted elsewhere as vacancies occurred.

The working hours were 6 a.m. to 6 p.m. six days a week for most of the year, with three-quarters of an hour for breakfast and one hour for dinner. During winter, work began at 7 a.m. and ended at 4.30 p.m., with breaks at 8 o'clock for breakfast and 12 o'clock for dinner; later, the arrangement was altered to 8 a.m. with breakfast before work. One course of lectures was given in the morning on two days a week in spring, for one hour immediately after breakfast, the other courses were given in the evening, beginning at 6 or 7 o'clock according to the time we were leaving work. On two mornings a week those who were not attending lectures were allowed half-an-hour in order to become acquainted with plants in parts of the gardens other than where they worked.

There was a good garden library that was open to gardeners from 7 to 10 o'clock, five evenings a week, and every young gardener was expected to average five attendances a fortnight. He had to sign a register each time he attended, and from time to time the register was examined and men who had been slack in attendance were called upon to explain why they had been absent. I am afraid that this procedure led to mis-statements of fact. The student gardeners had to take charge of the library in turn, during

which time they were responsible for the behaviour of other men and the safety of the books. As the library of that time was over the Director's Office, and as he often worked in the evening, we had to be careful that there was no unnecessary noise. The period of library duty was one week.

On Monday evenings, during the period late September to March, there were meetings of the Mutual Improvement Society, held in the library. As a rule a young gardener prepared a paper on a pre-arranged subject. After the paper had been read, two men who had previously been warned, had to open the discussion, which was then continued by others. It was generally understood that one would agree with the subject matter of the paper and the other oppose it. The meetings often lasted from 7 p.m. to 10 p.m., and were sometimes continued to a later hour on Kew Green. We were limited to horticultural subjects; had politics and religion been allowed I do not know what would have happened; as it was the discussions became heated at times; the wrath of one man after being called a cynic was hard to appease. Everyone agreed that the Mutual Improvement Society was an excellent institution. Except for the Assistant Curator acting as Chairman, it was rarely visited by an official and many a young fellow, who was tongue-tied during his early attendances, learned to express himself before an audience. Men who gave papers had to be very careful what they wrote and the necessary research gave them a very good grasp of a subject. I remember Mr. Baker, our lecturer, once telling us that if we wanted to get a good knowledge of any subject we should write a paper on it. In addition to all this evening work those taking lectures had to prepare notes for submission to the lecturer. I was fortunate during the time I was taking lectures as I lodged opposite the gate by which I had to enter and leave, and worked within a minute's walk of the gate, therefore I could write most of my notes during the dinner hour.

There were two grades of Sunday duty, full day duty, which consisted of looking after the plants and half-day duty, which was divided between the young gardeners and the garden labourers, consisting of controlling visitors and answering questions. One labourer hit upon a novel plan for adding to his income while on Sunday duty. He invested in an eighteen-penny pocket lens and when, from his station near a glasshouse door, he saw a father and children heading for the house, he took out his lens and by the time the door opened he was busily engaged examining a leaf, flower, insect, or if nothing better offered, a cinder from the stage. As the father passed he was accosted with the words, "Wonderful the works of nature, sir. Would the little ones like to look at this through my glass?" Of course the children were all agog and must see all there was to see, and father could do no less than acknowledge the kindly action by the transfer of coin. But who could blame the man for trying to make a little extra?

At that time the labourers were paid seventeen shillings a week when first engaged and eighteen shillings a week later if they proved to be satisfactory, and if they did not they had to leave.

Student Gardeners were allowed to change from one plant house, or group of plant houses, to another after a reasonable time had been spent in one place, and it was usual for men to apply when they heard that there was likely to be a vacancy in a desirable direction. After I had worked in the Palm House for nine weeks a vacancy occurred in the tropical propagating houses and three men from the Palm House applied for it. I did not do so as I thought that I had not been long enough at Kew to ask for a change of work. However, I was sent for by the Assistant Curator and asked whether I would like to fill the vacancy. He had made enquiries and thought that the work I had done at Chester could be put to good purpose at Kew. I accepted, but it caused unpleasantness among some of the other men who thought that I was too young to be given such a charge.

My chief work was to propagate and rear a collection of shrubby begonias. The Cape and Begonia Houses were to be rebuilt during the summer and the begonias were to be ready to fill the new house about the end of September. I could see that it was a good opportunity for proving whether I was capable or not, and if I succeeded all would be well, but if I failed I might just as well leave Kew at once. However, my nursery training had been sound so I tackled the job and put my back into it; the fact that some of my colleagues had declared me too young for the work gave me something to fight for.

Apart from my own job there was much of interest to see in the department. It was there that plants were grown for transmission to the Colonies. I had not previously seen a wardian case used for the despatch of plants, and I was only too glad to be able, on occasion, to help Billy Crisp, the packer, with the work. He was an excellent packer and letters of appreciation were constantly reaching Kew from distant parts of the world, on the splendid condition in which plants arrived after a voyage of several weeks through tropical seas. An interesting event took place in 1891, for several thousands of suckers, five to six inches high, of *Agave sisalana* (sisal hemp), were received for transmission to the Bahamas and other places. On arrival at Kew they were planted in a sunny frame in sandy soil and nursed until they had recovered from the first part of their journey. They were then repacked and sent to their final destinations. Although they became established in the Bahamas their commercial cultivation in the islands was not a success. Much better results followed the introduction of sisal to East Africa where there has been a thriving business in the production of sisal fibre for many years. Another matter that interested me was the receipt of several barrels of seed of the mahogany tree (*Swietenia mahogani*), from Central America, for examination and transmission to India,

where experiments were being conducted with the cultivation of the tree in Indian forests. I was informed that similar consignments had been sent over a number of years. Many years later I was told by an ex-Forest Officer from India that the tree had succeeded very well in some areas. About the same time large quantities of acorns of common oak were being sent to South Africa for experimental work. They were sent in barrels of water. During my first summer at Kew I became aware of the necessity for using special means of packing in order to prevent certain kinds of seeds drying out before they could be sown, and to ensure their delivery in distant countries in a viable state. Some kinds of oily seeds, and others that lose their germinating properties quickly, were always given special treatment. Acorns and oily seeds received from, or sent to, distant countries were often packed in slightly damp moss or powdered charcoal. One of the present day means of forwarding important seeds or cuttings very long distances is in thermos flasks by air mail.

Plants of economic importance that were destined for the Colonies were grown in 3½-inch flower pots and kept in a sturdy state, any tendency towards luscious growth being checked. They were usually packed in wardian cases. Some of the kinds of plants that were being distributed at the time about which I write were cocoa, coffee Para and other rubbers, *Cinchona* (quinine), pepper, arrowroot, ginger, tea, vanilla, cloves, nutmegs, oranges, lemons, limes, sisal, etc. Every plant was cleaned before despatch in order to try and destroy lurking insect pests and diseases, but it was difficult to ensure complete cleanliness and there can be little doubt about pests and diseases being sometimes transmitted from country to country on imported plants. In the same way all plants received from abroad were cleaned on arrival at Kew. Many of the plants received from tropical countries had been established in sections of bamboo shoots for packing.

It was not possible to be at Kew very long without acknowledging the fact that men who had acquired a sound preliminary training, and used their eyes and common sense, could learn a very great deal in a short time, even though they had nobody to give them particular attention or coach them. The insistence upon men having had at least four years' practical training, before being accepted as Student Gardeners, lifted a great weight from the shoulders of authority, by making sure that there would always be a goodly number of men who were well versed in cultivation. Authority, however, though very fond of indicating how much the young men gained from the privilege of being allowed to work at Kew, failed to remember what the young men were doing for Kew. That was the attitude of the times.

One of the interesting people I met at that time was Henry Wickham, the man who was sent to Brazil to collect seeds of the Para rubber tree and arrived at Kew with them one June evening in 1876. The seeds are very oily and soon lose their vitality, and

therefore it was not surprising that only $3\frac{1}{2}$ per cent. produced plants, but they were enough to lay the foundation for the immense industry that developed in the Far East. A few plants had previously been sent to the Botanic Gardens, Calcutta, but they had not grown very well, and it was therefore decided to send this larger consignment to Ceylon. The viable seeds germinated quickly and in the course of a few weeks 1,900 plants were ready to send away. They were packed in 38 wardian cases and despatched to Ceylon on August 12th, 1876, a young gardener accompanying them to give them attention on the way. They arrived in good condition and from the date of their arrival grew so well that in the course of a few years they were producing seeds to plant elsewhere.

Wickham had an adventurous time during the collection and transport of his seeds. He had to go far into hostile country with very indifferent communications, collect his seeds and get them to the coast. When he arrived there with his packages containing 70,000 seeds, there was no ship available to take them home. There was, however, a vessel lying in the harbour waiting for cargo, and knowing the urgency of getting the seeds to a place where they could be sown in the shortest possible time, he took the risk of chartering the ship for his seeds and she arrived in the London docks with no other cargo. He landed in the early evening and immediately took his seeds by horse cab to Kew, where he arrived late at night. The plant houses were ready for them and the Director, with Wickham and others, worked into the early morning getting them into the soil.

To return to my begonias. Fortunately for me they grew very well and I was particularly successful with *Begonia socotrana*, a species from Socotra that had been in cultivation only a few years, and in which Mr. Watson was very interested. Although only of comparatively recent introduction it had already attracted the attention of hybridists, by whom it was used in the breeding of many well known varieties such as *Gloire de Lorraine*. I was warned that *B. socotrana* was difficult to keep in good health and that the leaves often became marked by brown streaks. I knew nothing about the plant but noticed that the brown marking became worse after plants had been syringed and left wet. Therefore, I said nothing to anybody but experimented by placing a number of plants on a shelf near the glass and keeping the leaves dry. I even went so far as to do as we did at Rylances with pelargoniums, soaked up any drops of moisture that inadvertently appeared on the leaves. In a few weeks I noticed an improvement and treated all the plants in the same way, with very good results. The Assistant Curator went away for a month's holiday towards the middle of August, arriving home to find the new house ready for the begonias. He was very pleased with my plants, particularly with the healthy appearance of *B. socotrana*, and I had to explain to him how I had produced plants with healthy green leaves, and

where I had got the idea of soaking up moisture that settled on the leaves. About that time W. J. Tutchner gave up the sub-foremanship of the Orchid Houses and T-Range to go to Hong Kong, and C. H. Curtis was moved from the tropical seed houses of the propagating department to take his place.

I also had a move, for I was given the charge previously held by Curtis, again without asking for a change. It was looked upon as the best charge on the place below the rank of sub-foreman, and my selection for it caused some unpleasantness as I had only been at Kew eight months and looked so absurdly young. However, I was qualified for it as I had been trained with similar work at Chester. With that charge I was again fortunate in being able to please the Assistant Curator. I was in a position to contact a number of interesting people, including past Kew men and other collectors from abroad who had sent seeds home and called to find out how they had germinated, and whether young plants were thriving. They also had much to say about those and other tropical plants in which they were specially interested. One man I remember was Mr. Scott-Elliot, who collected in Africa. There were also Curtis—uncle of C. H.—from Penang, Fox from Singapore, Derry from Perak, and Cradwick from Jamaica, all Kew men in charge of botanic gardens. Another man I first met at that time was William Goldring, a Kew man who had acquired considerable fame as a landscape gardener, and had an engagement that took him to India for the winter months each year. He had just returned home and was with the Assistant Curator when I was called into the office, shown some seeds, and asked whether I could identify them, Mr. Goldring had brought them and had forgotten what they were. As it happened I was able to suggest the name. In after years Goldring and I became very friendly.

I believe that the first time the Director spoke to me was during my nine months' work amongst tropical seeds and seedlings. It came about through some seedling Disas. Mr. Watson had crossed *Disa grandiflora* with *D. tripetaloides* and *D. Veitchii* with *D. tripetaloides*. Seeds were matured in each case and I was given them to sow, with special instructions to look after them very carefully. I sowed them on a mixture of chopped sphagnum moss and small pieces of crock and charcoal. After a few weeks I saw signs of movement and drew Watson's attention to the sprouting seeds. It was considered to be quite an achievement to raise seedling Disas that were likely to be hybrids, and from the first signs of vegetation there were lots of visitors to see them. The Director was soon on the scene and I had to point out the germinating seeds to him by means of a pointed pencil and pocket lens, as he could not detect them amongst the sphagnum. He was very interested and looked in several times during the following weeks to see how they were getting on. He was very pleased when he was able to see them without assistance. An

important person the Director brought to see them was the late Rt. Hon. Joseph Chamberlain, M.P. He was an orchid enthusiast and was duly impressed with the seedlings. The progeny of the two crosses were eventually named *Disa kewensis* and *D. "Premier."* At the same time Mr. Watson was doing a good deal with the hybridization of *Streptocarpus* and the improvement of existing strains of what was then a comparatively little known race of greenhouse plants, and I had to raise his seedlings.

I first became acquainted with the Assistant Director, Dr. (later Sir Daniel) Morris, over seeds of sugar cane. At that time little was known about raising sugar cane from seed, and he, in studying means for combating diseases of sugar cane in the West Indies, conceived the idea of attempting to raise varieties that would be immune to disease. As sugar cane was invariably increased by cuttings or sections of stem, there was difficulty in procuring seeds, but after some difficulty a few were procured. They were given to me to deal with and on Dr. Morris's instructions they were sown on a wet flannel over sterilized coconut fibre, no soil being used. Fortunately a few plants were raised and Dr. Morris looked in most days to see how they were getting on. It was then his turn to bring friends to see the seedlings and more interesting people were met. This was the beginning of Dr. Morris' work that was destined to bring about a new era of prosperity in the West Indies. It was partly through his imagination, with the aid of the Directors on one of the Liverpool shipping interests, that the banana trade between the West Indies and the British Isles originated.

James Guttridge was the first sub-foreman under whom I worked in the propagating houses, but during my time he went to Glasgow as Foreman of the Botanic Gardens, and he eventually became Chief Superintendent of Parks, Liverpool. He was succeeded in the propagating houses at Kew by a German, Gustav H. Krumbiegel—shortened by us to "Krummie"—a well educated man and a good plantsman. Even in those days Germany was interested in the domestic concerns of Britain, and "Krummie" told us that he had to report upon the water mains and drainage system of the district in which he lived, or as much as he could learn about them. I should add that, amongst other Student Gardeners, Kew was allowed to take either four or five foreigners, but they were engaged for one not two years. An exception was made in the case of Krumbiegel. Some years later a system of exchange of men was arranged with various countries which worked very well. During Krumbiegel's term of work in the propagating houses the scheme for a "Guild of Kew Men" originated. It came about through a suggestion made by me at a meeting of the Mutual Improvement Society during the session 1891-92. During a discussion I put forward the idea that something might be done to bind Kew trained men more closely together, and keep those who had gone to distant parts of the

world in touch with Kew and with one another. The matter was favourably received, and Krumbiegel and I, who worked together, were asked to think the question over and make concrete suggestions to a special meeting of Student Gardeners, to which curators and foremen should be invited. Krumbiegel was largely responsible for drafting the scheme after hearing my ideas, one of which was the publication annually of a journal dealing largely with personal matters, the movements of men, notes and articles of general interest, lists of present and past Kew men with the addresses of those who had left. The scheme was discussed at the meeting and a small committee was formed to analyse it and make sure, before its submission to the Director, that it contained nothing that could be construed into bearing a political bias. The committee was made up of Messrs. Watson, Bean, Winn, Krumbiegel, Bliss and one or two more. Although I was the originator of the idea I was not placed on that committee. I felt very sore about it and put it down to my unpopularity with a section of the young gardeners owing to the rapid progress I had made during the time I had been at Kew. I learned that two slanderous statements were current at the time amongst some of the men: one was that outside influence was at work on my behalf, the other that I carried tales to the officials. Both were emphatically untrue, I had neither outside nor inside influence working for me, neither did I carry tales. I had been well trained and taught to work hard, and that was all I had in my favour.

Fortunately a dozen or more men were friendly with me and we remained friends throughout life. Eventually the Kew Guild was formed and it was arranged that a journal should be published once a year. The annual subscription to the Guild was one shilling and a life subscription could be purchased for one guinea.

We were allowed to attend the May Exhibition of plants and flowers held by the Royal Horticultural Society in the Temple Gardens. It was by far the best flower show that many of us had seen, though the modern Chelsea exhibitions are very much larger and more comprehensive. We got to the show at 8 a.m. and had to be back at work at 1 p.m.

How different conditions of life were in 1891-92 than they are now can be understood by looking back to the horsed omnibuses, tramcars and other vehicles, poorly lighted streets, the limited number of entertainment houses, and the modest requirements of the people. In one direction I think that people were as well served as in the present day, and that was in the number of public houses; beer was cheap and there were really too many. On fine Sundays, when the Gardens were at their best, it was interesting to stand by the Main Entrance and note the variety of equipages as they discharged their passengers. There were four-horse coaches and brakes, pair and single-horse broughams, phaetons, wagonettes, ralli cars, dog-carts, gigs, horse-cabs, hansom

cabs, costers' carts drawn by ponies or donkeys, and what not. On Bank Holidays many costers visited Kew, the men resplendent in bell-bottom trousers, long jacket and waistcoat, and peaked cap, the whole adorned with quantities of pearl buttons; the women with wide-brimmed hats gay with several brightly coloured ostrich feathers, some of them emulating their husbands or lovers in the use of pearl buttons, and apparently bringing up their offspring to favour the same kind of adornment. They visited Kew to enjoy themselves, which they did seriously enough as long as they were within the gardens, but towards the close of the day, as the gardens were cleared, they remained on Kew Green for two or three hours and a large kiss-in-the-ring was formed to which all-comers were welcome, and the fun became fast and furious. A favourite form of amusement was the use of water squirts and feather ticklers. There was also an element of itinerant vendors who lined the north side of Kew Green with stalls and barrows from which fruit, cakes, winkles, cockles, tea, highly coloured lemonade and other "delectable" foods and drinks could be obtained, while the adventurous were catered for by vendors of quack medicines, and jewellery, with one's fortune predicted at a penny a time and so on. Bank Holiday visitors are still catered for on the north side of Kew Green, but there has been some modification of conditions.

In 1891, one girl in Kew, a Miss Frost, had the temerity to ride a bicycle. She was the talk of the neighbourhood and was declared a fast hussy by her detractors. Two or three years later, when more girls took to cycling and adopted what was then called "rational costume," the indignation of less advanced women folk on the way they were being let down, is beyond description. Rational costume was a kind of knickerbocker suit, the knickerbockers being familiarly termed bloomers. They were usually black, very ugly, and apparently designed so that they should not reveal the shape of the wearer's legs. It should be remembered that in those days a woman must upon no account allow her ankles to be seen.

At that period the country for miles around Kew was given up to market gardens and there were a good many orchards. The disease of plums known as "Silver Leaf," was present, but it had not reached the epidemic stage that came a few years later.

In the spring of 1892 the Director increased the number of Student Gardeners to about 70 in order that some might be employed out of doors. The first man to be so employed was David Milne. He was sent to the Decorative Department. Then early in June I was asked whether I would like to transfer to the Arboretum with the idea of taking charge of the nursery and succeeding the propagator, who was on the look-out for a new post. However, I was not to divulge the fact that my transfer was likely to lead to preferment. I accepted, thereby

unconsciously altering the whole of my preconceived plans for the future, and causing my fellow students to surmise that I had done something wrong and had been turned out of my charge to undertake work that had hitherto been done by garden labourers.

There was a lot of discontent among the Student Gardeners about the lectures and the times they were given, and I thought that the complaints were well founded. The students maintained that they entered Kew on a "give and take" basis, and that the rules and regulations issued on entrance to the gardens did not make things clear; while full advantage was taken of the knowledge and work of the young men, the facilities for improvement offered by authority were very sketchy. It was thought that more of the lectures should be given during working hours, as men were not in the best state to take advantage of lectures after being at work from 6 a.m. to 6 p.m., often in very hot and moist temperatures. Moreover, the long working hours did not fit men for close study in the evening, and they thought that if Kew was to be maintained as a training establishment for young men who had already gone through the preliminary courses, with a view to their taking posts of some importance at home and abroad when they left Kew, there was room for some modification or extension of the lecture system. They advocated fewer working hours, with more lectures to take the place of the time lost from practical work. They thought that there should be courses of instruction on such subjects as surveying, the preparation of working plans for laying out ground, soils and manures and plant pathology from both entomological and mycological standpoints, while there should be demonstrations amongst the living plants. The authorities were apathetic and nothing was done. It would have been more costly to run the gardens had these suggestions been given sympathetic consideration, but £1,000 a year spent in the direction suggested would have been very helpful to Student Gardeners, and of very great benefit to all, particularly to those who went abroad.

We were encouraged to make suggestions regarding working conditions at the Annual Meeting of the Mutual Improvement Society, but they rarely bore fruit, though some attention was given to a proposal I made. To a young fellow entering Kew the extent of the plant collections was bewildering and he lost several months flitting about in odd moments like a butterfly or bee from plant to plant, trying to make up his mind which were worth noting and which were not. Therefore, I put forward the suggestion that either the curators or foremen should be allowed to give us a series of demonstrations amongst the living plants, indicating those that were specially worthy of attention and those that required special cultural treatment. The idea was thought good enough to place before the Director, but instead of instituting a new course of instruction, five of the course of

lectures on systematic botany were changed to demonstrations amongst living plants, but they were of no particular value to us as the lecturer, a botanist, had no cultural knowledge of plants and was not interested in purely garden plants, as apart from those of botanical interest.

Another cause of complaint was the stereotyped nature of the leaving certificate. It was partly printed, with spaces left for filling in, but gave very little information about a man's gardening experience or qualifications for managing men. We would have liked to work for a Kew Diploma, but failing that we thought that every man who had worked faithfully for the place was entitled to a properly written testimonial on leaving. The Director's contention was that the mere fact of a man having been retained at Kew for two years was enough to prove that his cultural qualifications and moral character were all that could be desired. But it was rather galling to find that men who had worked well fared no better, over their leaving certificate, than those who had never really got down to work, though they had not done anything to warrant dismissal before the end of their two years' engagement. The quality of the testimonial did not matter so much when a man left Kew as it did later in life when he wished to take a better appointment and his opponents had more carefully prepared references.

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SUCH IS FAME!

When I was leaving Western Australia, a naturalist friend offered me a letter of introduction to a colleague in New South Wales, and dictating this to his secretary, mentioned my connection with Kew. When the letter was returned for signing, it was found to refer to Cue—a small, inland, gold-mining town in Western Australia.

J. S.

In Memoriam

It is with regret that we have to record the deaths of the following: Messrs. T. Bass, W. F. Gullick, C. H. Oldham, G. T. Philpot, and Miss A. B. Freda. Unfortunately we are unable to give suitable obituaries of these Old Kewites as we have little more than the sad news of their deaths.

We very much appreciate the information given in the past by some members upon learning of the death of a friend and we should be grateful to receive help from others who learn of deceased Kewites, so that a worthy record may be included in the *Journal* of them all, including those named above.

* * *

ROBERT L. HARROW

On December 22nd, 1954, one of the oldest Kewites, Robert L. Harrow, died at his home at Godalming, Surrey.

Born and bred in Kent, his early training was gained in private service and after this he entered the service of the University Botanic Garden, Cambridge.

From Cambridge he came to Kew, eventually becoming Sub-Foreman in the Ferneries. In January, 1893, he left to take up a Foreman's position at the Royal Botanic Garden, Edinburgh, where he remained until his retirement in 1931. His reputation as a plantsman gained him the Victoria Medal of Honour. Upon his retirement from Edinburgh he became Director of the R.H.S. Gardens, Wisley, a position which he held for many years.

A quiet, unassuming and a modest man, Mr. Harrow will be sadly missed both for his pleasant and courteous personality and for the vast amount of knowledge of horticultural practice the benefits of which he so freely gave to others.

Our sympathy is extended to his daughter who survives him.

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ROBERT PATON

Contemporaries of Mr. R. A. Paton, who left Kew in July, 1925, will be surprised and saddened to learn of his death in South Africa on February 1st, 1953.

For many years he occupied an important position with the Nigerian Hardwood Company and it was not until March, 1952, that he gave evidence of illness. He was flown home to this country and had the same operation performed by the same surgeon as that of the late King George VI, and after some months convalescing at home, he returned to Nigeria in August of that year, where he remained for a few weeks before flying to South Africa for his retirement. His period of rest was very short,

because he was taken ill and died from a tumour on the brain soon afterwards.

He is survived by his wife and two children, whose education is being looked after by the Company by whom he was employed. We tender to them our sympathy in their sad loss.

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A. C. WHIPPS

Kewites, and particularly those living in the Southern Counties, learnt with regret in February, 1954, of the death of Mr. A. C. Whipps who was probably one of the staunchest supports the Kew Guild ever had.

He entered Kew in March, 1902, from the Gardens at Abbot's Hall, Shalford, Braintree, Essex, where for some six years he served his apprenticeship, and on completion of his training in March, 1904, left to take up a position at Wickham Hall, West Wickham, Kent. After some years of added experience he joined Messrs. Carters Tested Seeds, Ltd., at Forest Hill Nursery, and later became a representative for the firm.

He was well known in the south, where most of his life's work was completed, and his pleasant and cheerful personality brought him many friendships, which continued throughout the years.

Mr. Whipps was a good practical horticulturist, well known at various shows throughout the London area and though not seeking the limelight was ever willing to help.

We tender our deepest sympathy to his widow and son.

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EDWARD LUJA

It is unfortunate that in so many instances news of the death of old Kewites reaches Kew when the *Kew Guild Journal* is returned from the addresses at which they have resided for many years. We learn from Mr. Luja's son that his father died on the 14th of September, 1953, at Luxemburg.

Little is known of the work he did in later life, but in 1899-1900 he carried out a visit to the Congo collecting plant material and later took charge of a rubber plantation in Portuguese East Africa. On his return he wrote informing Kew that he had brought home many nice climbers, thousands of *Haemanthus*, *Gladioli*, *Liliums*, *Scillas*, *Crinums* and a gigantic *Amorphophallus*.

Our sympathy is extended to his relatives.

SIGMUND KARRER

It was with regret that we learnt of the death of Sigmund Karrer at Erfurt, Germany, after a long illness, in January, 1954, at the age of 73. He began his horticultural career at the Botanic Garden at Tübingen, became a student at the University there for a short time and entered Kew in 1901. Whilst here he worked mainly in the Decorative Department. On leaving in 1902 he gained further experience in other countries and later, upon returning to Messrs. Haage & Schmidt, at Erfurt, he used his wide knowledge as Head Gardener. In 1926 he joined the seed firm of "Karl Pabst" as their General Manager, staying until his retirement in December, 1945. Mr. Karrer was held in high esteem by his numerous friends and colleagues and those Kewites who knew him will learn with sorrow of his passing.

We extend our sincere sympathy to his widow.

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JOHN GOSSWEILER

John Gossweiler, who died in Lisbon on February 19th, 1952, was born at Zurich on Christmas Eve, 1873.

He was a student at Kew in 1897-98, having spent the previous two years at the Royal College of Science, South Kensington. Sir William Thiselton-Dyer, who was then Director of Kew, much impressed the young man, who in after years acknowledged what an inspiration Kew had been to him and how his short stay there had coloured his whole life.

In 1899 young Gossweiler went out to Luanda, Angola, and took charge of the newly established Garden of Acclimatization. He was to stay there for the next fifty years, except for the numerous botanical excursions to various parts of the country, which resulted in the discovery of many species new to science.

Some years passed before the Garden was really functioning. Gossweiler introduced into it many species native to the tropics of Asia and America.

In the 1920's he left the Angolan Government service and worked in private gardens, but he continued his collecting excursions.

He re-entered Government service in 1926 to organise an experimental cotton station at Catete. Six years later he was investigating diseases of coffee in Amboim.

His last important collecting was done in 1947 when he was 74 years old, and this brought the total of his gatherings to over 14,000. The Botany Department of the British Museum received the first set of Gossweiler's plants. It has had a long connection with Angolan botany, dating from Gossweiler's predecessor, Welwitsch.

Gossweiler was the author of several papers on Angolan plants. He is commemorated in the genera *Gossweilera* (*Compositae*) and *Gossweilerodendron* (*Leguminosae*). He was elected a Foreign Member of the Linnean Society in 1950 for his services to African botany extending over half a century.

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REGINALD HANDS.

Kewites will be very sorry to learn of the death of Mr. Reginald Hands who died very suddenly on July 6th, 1954, and was interred at Lodge Hill Cemetery, Birmingham, on July 10th.

Mr. Hands left Kew in January, 1926, to take up a position as Assistant to Mr. W. M. Campbell at Birmingham University. When the latter left to take over the Parks Department at Hounslow, Mr. Hands was promoted to the post of Head Gardener and continued in this capacity until his death. In the early days of reconstruction after World War I, the acreage was not extensive but during the later years the area under the control of Mr. Hands's Department totalled over 200 acres. These included more particularly some exceptionally fine playing fields.

A man with a very likeable personality, the whole of those with whom he worked held him in very high esteem. Kewites and the authorities at Birmingham are the poorer for his passing.

Our deepest sympathy goes to his wife in her sad loss.

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WILLIAM H. WALTERS.

Another of the older Kewites passed away without our attention being called to his death, when Mr. W. H. Walters died in June, 1952. He was then in his 80th year, having left the Gardens in December, 1896.

His life was given more particularly to private service and he held the post of Head Gardener to Lt.-Col. Shipmay at Chiswick, to Mr. H. I. Elwes, of Colesbourne Park, Cheltenham, and at a later date to Mr. Elwes' son, Lt.-Col. Elwes, whose garden housed a very fine collection of plants and had, like so many other gardens, to be turned into commercial cultivation in later years.

Mr. Walters had a great affection for plants and even until the end he looked after the collection of Mrs. Pope, of Summerford House, Cirencester, on whose estate he resided.

He leaves a widow to whom we offer our deepest sympathy and members will be glad to learn that at the end of 1954 Mrs. Walters was still living in the cottage which they had shared.

Miss PATRICIA RAWDON.

One day early in February, 1954, her Herbarium colleagues were shocked by the news that Miss Pat Rawdon had been killed in a car accident. She was a quiet, serious girl, but a smile was always lurking behind the thoughtful outlook.

Miss Rawdon had come to Kew scarcely more than eighteen months before, in July, 1952, as Assistant Experimental Officer, to take over the National *Dianthus* Collection in the Herbarium and Herbarium garden. At the time of her death she was beginning to publish the results of her research. Only about a month before the end, her first paper, on *Dianthus viscidus* Bory et Chaub., appeared in the Kew Bulletin.

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Mr. W. J. NEWBERRY.

We are sorry to hear of the death of Mr. W. J. Newberry in Pietermaritzburg, Natal. Another Old Kewite, Mr. W. E. Marriot also of Pietermaritzburg, sends us this sad news, together with the following sketch of Mr. Newberry's career: —

It is with regret that one reports the death of William John Newberry in Pietermaritzburg, Natal, on the 24th July, 1954, after a short illness. He was 74 years of age and unmarried.

After serving with his father, who was Head Gardener to Lord Verulam, he entered Kew as a Student Gardener. He left Kew in 1903 and became propagator at the Royal Botanic Gardens, Regents Park.

He came to South Africa in 1906 as assistant to W. E. Marriot (an Old Kewite) then Curator of the Botanic Gardens in Pietermaritzburg, Natal. When Mr. Marriot relinquished the position in 1910 Mr. Newberry was appointed Curator. He resigned after seven years to become Superintendent of Parks to the Pietermaritzburg Corporation. In 1940 he reached the pensionable age and returned to a home he had built in the suburb of Wembley, overlooking Pietermaritzburg and which he named "St. Albans," after his home town. He was a City Councillor for two years and a member of the Committee of the Botanic Society of Natal (who administer the Botanic Gardens) for eleven years. He is survived by three sisters who live in St. Albans, England.

KEW STAFF LIST

(as at December, 1954)

* Life Member of Guild.

† Formerly a student gardener at Kew.

	Entered Kew
DIRECTOR'S OFFICE	
Director.....	*Sir E. J. Salisbury, C.B.E., D.Sc., LL.D., Sec.R.S., F.L.S., V.M.H. 1943
Asst. Director (Senior Principal Scientific Officer).....	*N. L. Bor, C.I.E., M.A., D.Sc., F.L.S. 1948
Establishment Officer.....	F. G. Solomon..... 1949
Clerical Officer/Secretary.....	Mrs. A. M. E. Kendall..... 1947
Clerical Officer.....	Mrs. L. A. Kell..... 1948
Clerical Assistant.....	Miss C. M. Newell..... 1952
HERBARIUM AND LIBRARY	
Keeper (Senior Principal Scientific Officer).....	W. B. Turrill, D.Sc., F.L.S..... 1909
Principal Scientific Officer.....	V. S. Summerhayes, B.Sc..... 1924
" " ".....	F. Ballard, B.Sc..... 1929
" " ".....	N. Y. Sandwith, M.A., F.L.S., F.R.G.S. 1924
" " ".....	†C. E. Hubbard, F.L.S..... 1920
" " ".....	E. W. B. H. Milne-Redhead, T.D., M.A., F.L.S. 1929
" " ".....	R. Melville, B.Sc., Ph.D., F.L.S.... 1934
" " ".....	R. W. G. Dennis, B.Sc., Ph.D..... 1944
" " ".....	A. A. Bullock, B.Sc., F.L.S..... 1929
" " ".....	J. P. M. Brenan, M.A., F.L.S..... 1948
Senior Scientific Officer.....	*J. R. Sealy, B.Sc., F.L.S..... 1927
" " ".....	J. B. Gillett, M.A., F.L.S., (Colonial Office) 1948
" " ".....	R. W. J. Keay, M.A., F.L.S. (Colonial Forest Service)..... 1951
" " ".....	R. D. Meikle, B.A., LL.B., F.L.S. 1947
Scientific Officer.....	J. Lewis, B.Sc. (Colonial Office)..... 1950
" " ".....	J. H. Hemsley, B.Sc. (Colonial Office) 1950
" " ".....	F. N. Hepper, B.Sc..... 1951
" " ".....	D. A. Reid, B.Sc..... 1951
" " ".....	L. L. Forman, B.Sc..... 1951
" " ".....	Miss E. A. Bruce, B.Sc. (Colonial Office) 1954
" " ".....	Miss J. Taylor, M.Sc..... 1951
" " ".....	Miss J. Elffers, B.Sc. (Rand Colonial Office) 1953
Senior Experimental Officer.....	†E. Nelves, F.L.S..... 1921
" " ".....	R. A. Blakelock, B.Sc., F.L.S..... 1937
Experimental Officer.....	Miss C. I. Dickinson, M.A., Dip. Agric. 1928
" " ".....	R. B. Drummond, B.Sc. (Colonial Office) 1949
Experimental Officer.....	Miss P. Lewis, B.Sc., F.L.S..... 1947
" " ".....	P. Taylor, F.L.S..... 1948
Assistant Experimental Officer.....	J. Kennedy-O'Byrne..... 1948
" " ".....	Miss S. Hooper, B.Sc..... 1952
Senior Assistant (Scientific).....	Miss M. I. Skan (Index Kewensis) 1919
" " ".....	Miss J. Forster..... 1947
Assistant (Scientific).....	Miss I. Blewett..... 1941

	Entered Kew
Assistant (Scientific).....	Miss I. Bewley..... 1949
" ".....	Miss L. Fletcher..... 1952
" ".....	Miss P. Halliday..... 1947
" ".....	Miss J. I. Morris..... 1950
" ".....	Miss D. Newton..... 1948
" ".....	Miss S. Patten..... 1953
" ".....	A. L. G. Sapper..... 1948
" ".....	Mrs. O. Tait (Index Kewensis)..... 1950
" ".....	G. D. Udale..... 1953
" ".....	P. Wilson..... 1953
Visiting Botanist.....	D. J. B. Killick, M.Sc. (S. Africa)..... 1954
Librarian.....	H. S. Marshall, F.L.S..... 1932
Assistant Librarian.....	Miss B. A. Borrás, A.L.A..... 1952
" ".....	K. J. Churches, A.L.A..... 1954
Clerical Officer (Library).....	Miss M. J. Kierans..... 1934
" ".....	Miss P. L. Burridge..... 1954
Librarian Assistant.....	Miss M. C. Davey (Bentham-Moxon)..... 1937
Hon. Associate (Transplant and Breeding Experiments).....	E. M. Marsden-Jones, F.L.S., F.R.E.S..... 1922
Artist.....	G. Atkinson..... 1922
" ".....	*Miss Stella Ross-Craig, F.L.S. (Bentham-Moxon)..... 1929
" ".....	Miss A. V. Webster (R.H.S.)..... 1949
Preparer (Supervisor).....	Mrs. H. Wootton..... 1949
Temporary Technical Assistant.....	Miss A. Dunk (Bentham-Moxon)..... 1953
Clerical Officer.....	E. E. Cope..... 1953
" ".....	G. F. Lamb..... 1951
" ".....	Miss G. Pring..... 1954
Clerical Assistant.....	Miss F. V. Surplice..... 1954
Shorthand Typist.....	Mrs. E. Jones..... 1953
" ".....	Mrs. H. M. Skews (Colonial Office)..... 1953
Typist.....	Mrs. N. Newman..... 1954
" ".....	Mrs. B. F. Saunders..... 1952
" ".....	Miss I. L. Taylor (Colonial Office)..... 1951
JODRELL LABORATORY	
Keeper (Principal Scientific Officer)	C. R. Metcalfe, M.A., Ph.D., F.L.S. 1930
Scientific Officer.....	Miss M. Y. Stant, B.Sc., Ph.D..... 1950
Senior Assistant (Scientific).....	F. Richardson..... 1934
Assistant (Scientific).....	Miss D. M. Catling..... 1950
MUSEUMS	
Keeper (Principal Scientific Officer)	F. N. Howes, D.Sc..... 1925
Senior Scientific Officer.....	S. G. Harrison, B.Sc..... 1949
" ".....	T. A. Russell, B.Sc., A.R.C.S., A.I.C.T.A..... 1954
Scientific Officer.....	Miss B. J. Youngman, B.Sc..... 1950
Assistant (Scientific).....	Miss J. K. Bowden..... 1949
Preparer.....	L. J. Harding..... 1913
Typist.....	Miss V. Horwill..... 1951
GARDENS	
Curator.....	†W. M. Campbell, N.D.H., F.Inst.P.A. 1922
Deputy Curator (Tropical).....	*†L. Stenning..... 1925
" " (Arboretum).....	†S. A. Pearce, F.Inst.P.A..... 1928
Assistant Curator (Temperate).....	†J. E. S. Souster, N.D.H., F.L.S..... 1943
" " (Herbaceous).....	†G. H. Preston, F.L.S..... 1934
" " (Decorative).....	*†S. W. Rawlings..... 1936

	<i>Entered</i>	<i>Kew</i>
Foreman (Arboretum).....	P. G. Shutler.....	1946
" (Arboretum, Propagator)....	R. J. Chuter.....	1953
" (Botanics).....	G. C. W. Gardner.....	1926
" (Decorative).....	†F. A. Larkbey.....	1947
" (Ferneries).....	H. J. Bruty.....	1946
" (Orchids).....	†G. Nicholson.....	1947
" (Palm House).....	G. H. Anderson.....	1940
" (Rock Garden).....	†A. G. Cook.....	1948
" (Temperate House).....	M. A. Wells.....	1946
" (Temperate House Pits).....	W. H. Bridle.....	1946
" (Tropical Propagating Pits).....	*†E. W. Curtis.....	1950
" (Quarantine House, Colonial Office)	†H. Collin.....	1940
Executive Officer.....	†E. G. Dunk.....	1914
Clerical Officer.....	R. J. Claiden.....	1948
"	Miss E. Mates.....	1948
"	A. C. Rowe.....	1953
Shorthand Typist.....	Miss A. G. Barton.....	1953
Typist.....	Miss M. Sillitoe.....	1947
Sergeant-Constable.....	G. E. Williams.....	1906
Packer and Storekeeper.....	†H. W. Ruck.....	1907

STUDENT GARDENERS

<i>Name</i>	<i>Entered</i>	<i>Kew</i>	<i>Previous Situation</i>
Baylis, C. L.....	Mar., 1954		Southend Parks Dept.
Billett, M. H. T.....	Mar., 1953		Southend Parks Dept.
Boot, W. A.....	Oct., 1954		Bot. Gardens, Baarn, Holland.
Boulton, J. B.....	Apr., 1954		Charles Madsen, Ltd., Cheshunt, Herts.
Butcher, I. A.....	Sept., 1953		Bodnant Gardens, North Wales.
Chapman, J.....	Sept., 1953		Cambridge Botanic Garden.
Clark, D. V.....	Sept., 1953		Southgate Parks Dept.
Collins, G. E.....	Sept., 1953		Kent Horticultural Institute.
Comber, J. B.....	Apr., 1951		Sutton & Son, Slough.
Crowder, G.....	Mar., 1953		Southport Parks Dept.
Elton, T.....	Oct., 1954		Cheltenham Parks Dept.
Fugard, R. L.....	Oct., 1954		London County Council Parks Dept.
Godley, P. G.....	Apr., 1954		Windsor Royal Gardens.
Goodale, A. E. R.....	Apr., 1954		G. Thompson & Sons, Ltd., Park Hill Nurseries, Ewell, Surrey.
Hamblett, N.....	Sept., 1953		Manchester Parks Dept.
Harvey, T. O.....	Sept., 1954		Cambridge Botanic Garden.
Hind, H.....	Sept., 1954		Leeds Parks Dept.
Hitt, S. D.....	Sept., 1953		M.O.W., Hyde Park.
Hopkins, Miss A. D. S.....	Apr., 1954		Miss Gray, Bay Tree Hotel, Burford, Oxon.
Jew, P. J.....	Sept., 1953		Cambridge Botanic Garden.
Jones, A. S.....	Mar., 1953		Meadhurst Park Nurseries, Sunbury- on-Thames, Surrey.
Jordan, J.....	Apr., 1954		M.O.W., Hyde Park.
Kemish, G. T.....	Apr., 1954		Enfield U.D.C.
Lucas, J. A.....	Mar., 1953		Tangley Park Nursery, Hampton, Middlesex.
Manger, G. L.....	Sept., 1953		Beckenham Parks Dept.
Millard, R.....	Oct., 1954		Portsmouth Parks Dept.
Moore, D. J.....	Oct., 1954		Southgate Parks Dept.
Muller, T.....	Oct., 1954		A. Vogt, Gartenbau, Erlenbach/ZH, Switzerland.

<i>Name</i>	<i>Entered Kew</i>	<i>Previous Situation</i>
Pringle, D. J.....	Apr., 1954	Salford Parks Dept.
Riach, D. D.....	Mar., 1953	L. R. Russell, Ltd., Windlesham.
Rippon, A. V.....	Oct., 1954	M.O.W., Hampton Court.
Rogers, W. M.....	Oct., 1954	Messrs. Slocock, Woking, Surrey.
Scott, A. S.....	Oct., 1954	Brighton Parks Dept.
Seager, T.....	Apr., 1951	Coventry Parks Dept.
Shepherd, C. E. T.....	Mar., 1953	Willesden Parks Dept.
Till, B.....	Mar., 1953	J. Waterer, Son & Crisp, Ltd., Bagshot.
Tregear, J. P.....	Mar., 1953	School of Horticulture, Geneva, Switzerland.
Tyte, J. S.....	Apr., 1954	Badminton School, Bristol.
Vickers, F.....	Apr., 1954	Swansea Parks Dept.
Wilkinson, A. I.....	Jan., 1953	Donald Ireland, Ltd., Newcastle-on- Tyne.

IMPROVERS AND BOYS

J. Strabel, P. Tucker, B. Elliott, A. F. Goodwin, M. J. Griffin, A. L. Read, P. J. Saul,
G. C. Stringer, D. Togni.

AMENDMENTS TO ADDRESS LIST OF 1952-53 JOURNAL

(The Names of Life Members are preceded by an asterisk)

ABBREVIATIONS : H.G., Head Gardener ; F., Foreman ; N., Nurseryman ; M.G., Market Gardener ; C., Curator ; D., Director ; M., Manager ; B.G., Botanic Gardens S., Superintendent.

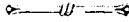
<i>Name</i>	<i>Left Kew</i>	<i>Present Position and Address</i>
Appleby, J.....	April, 1954 ...	53, Rathbone Road, Wavertree, Liverpool 15.
*Ashby, Mrs. D. G., N.D.H. (F. A. Sharps)	June, 1944 ...	Little Croft, Harston, Cambs.
Attenburrow, D. C.....	Oct., 1954 ...	c/o D. of Agriculture, P.O. Box 338, Nairobi, Kenya.
*Baker, A. F.....	April, 1920 ...	P.O. Box 23, Nigel, Transvaal, S. Africa.
Banfield, F. S.....	May, 1927 ...	20, Trevorton Avenue, Glenunga, South Australia.
*Bassett, W. E., M.B.E.....	June, 1927 ...	6, Ravenswood Road, Croydon, Surrey.
Baverstock, E.....	April, 1954 ...	44, Woodwald Road, Dagenham, Essex.
Bee, R. A.....	Dec., 1953 ...	c/o Bedford College, Regents Park, London.
Bentham, H.....	June, 1952 ...	Arle House, Arle Village Road, Cheltenham, Glos.
*Blackman, J. A. E., N.D.H.	Jan., 1934 ...	Plumpton Nurseries, Ltd., Sussex.
Boddington, H. P.....	Feb., 1951 ...	22, Coppice Avenue, Ilkeston, Derbyshire.
Brasher, P. A. D.....	Sept., 1953 ...	56, Telegraph Lane, Claygate, Esher.
Bromley, W. H.....	Sept., 1927 ...	Coedmore Cottage, Saunders Foot, Pembs.
Burras, J. K.....	April, 1954 ...	Oxford Botanic Garden, Oxford.
Bury, W.....	Mar., 1949 ...	47, Fell Close, Grange-over-Sands, Lancs.
Carr, O.....	Oct., 1947 ...	The Cottage, Deighton Grove. Crockey Hill, York.
Chambers, Mrs. K. (Watson)	Mar., 1922 ...	Bines Common, Partridge Green, Horsham, Sussex.
*Clarke, Thomas R.....	April, 1936 ...	Plumpton Nurseries, Ltd., Sussex.
*Cook, G. G. (Major).....	Dec., 1945 ...	War Graves Commission, 19, Rue Jean Guyon, Albert, Somme, France.
*Cook, Leslie.....	May, 1929 ...	Hort. Supt., Belle Vue Zoological Gardens, Manchester 12, and 173, Reddish Road, South Reddish, Stockport, Cheshire.
*Corbett, G.....	May, 1920 ...	Riseley, Bushfield Road, Bovingdon, Herts.
*Cutting, Stephen G.....	July, 1938 ...	H.G., "Fieldwood Farm," Briarcliff Manor, N.Y., and 50 Upper Croton Avenue, Ossining, N.Y., U.S.A.
Dalglish, J.....	Oct., 1954 ...	The Flat, Sudley, Mossley Hill Road, Liverpool 18.
Dally, H. R.....	Jan., 1953 ...	Dept. of Botany, University College, Cardiff, S. Wales.
*Davidson, Miss H. W.....	May, 1919 ...	Address unknown.
Dayson, F. G.....	Oct., 1948 ...	34, Forest Row, Roebuck, Stevenage, Herts.
Dean, George	Oct., 1937 ...	Asst. Director, Parks and Reserves, Auckland, New Zealand.
De Clercq, Lucien.....	May, 1938 ...	Rue de Gand, 227, Mont St. Amand-Gand, Belgium.
Donaldson, C.....	April, 1954 ...	1, Northfield Cottages, University Field Station, Wytham, Nr. Oxford.

<i>Name</i>	<i>Left Kew</i>	<i>Present Position and Address</i>
*Dumke, G. P. W.....	June, 1935 ...	Berlin Botanical Garden, Berlin-Dahlem, Germany.
Duncan, C. A. A.....	Mar., 1954 ...	
*Eavis, Harry.....	Mar., 1902 ...	"Glencairn," 93, Cot Lane, Kingswinford, Brierley Hill, Staffs.
*Edwards, J. H.....	Oct., 1947 ...	190, Seaview Road, New Plymouth, New Zealand.
Elson, Alec S.....	Feb., 1936 ...	Address unknown.
Evans, Sir Geoffrey, C.I.E. M.A.	Dec., 1953 ...	"Quarriers," Mayfield Lane, Wadhurst, Sussex.
Evans, Mrs. I.....	May, 1947 ...	Pitt Farm, Harbertonford, Nr. Totnes, S. Devon.
Fisher, Frank W.....	Dec., 1939 ...	73, Station Road, Hampton, Middx.
*Flippance, F.....	July, 1915 ...	Lavender Cottage, 17, Paddocks Road, Burpham, Guildford, Surrey.
*Free, M.....	Mar., 1912 ...	River Road, Hyde Park, New York, U.S.A.
*Gunnell, Miss Edna M., O.B.E., N.D.H.....	Sept., 1901 ...	8, Silver Terrace, Exeter, Devon.
Halhead, J.....	Oct., 1954 ...	33, Harsnett Road, Colchester, Essex.
Hamblin, I. C.....	June, 1952 ...	Moer Plantation, Ibadan, Nigeria.
Hardie, R. M.....	April, 1954 ...	c/o Felix & Dykhius, Boskoop, Holland.
Harper, A. E.....	Oct., 1933 ...	S., Parks Dept., Warrington, and 7, Brook Avenue, Stockton Heath, Warrington, Lancs.
Hart, Mrs. V..... (Miss V. Hudson)	Aug., 1951 ...	c/o Ministry of Works, British Embassy, Cairo, Egypt.
Haywood, P. A.....	Sept., 1950 ...	262, Kew Road, Kew, Richmond, Surrey.
*Hazel, C.....	Nov., 1919 ...	"La Roche," Mount Rossignol, St. Ouen, Jersey, C.I.
Heyworth, J.....	Oct., 1954 ...	18, Market Place, Ramsbottom, Lancs.
Hildyard, H. C.....	Jan., 1930 ...	S., 304, Linthorpe Road, Middlesborough, Yorks.
Hingston, J. A., N.D.H.....	July, 1948 ...	S., Municipal Offices, Bebington, Cheshire, and 2, Plane Tree Road, Bebington, Cheshire.
Hingston, Mrs..... (Miss J. Sharps)	Jan., 1949 ...	2, Plane Tree Road, Bebington, Cheshire.
Horton, D. E.....	Sept., 1928 ...	Address unknown.
Hudson, Miss V..... (See Mrs. V. Hart)	Aug., 1951 ...	
Ibbotson, D.....	April, 1952 ...	157, Preston Road, Brighton 6, Sussex.
*Ing, W. J.....	July, 1905 ...	Arcata Place, Skyline Lakes, R.F.D. Wanaque, New Jersey, U.S.A.
James, Eric B.....	Mar., 1936 ...	c/o Plant Protection, Ltd., Yalding, Kent, and 31, Broadwater Street, West Worthing.
*Jarrett, J. C., N.D.H.....	April, 1913 ...	71 Ashcombe Road, Weston-super-Mare, Soms.
*Johnson, G. C., O.B.E.....	Oct., 1914 ...	20, Gundreda Road, Lewes, Sussex.
Jollie, F. J. E.....	April, 1937 ...	21, Rocklands Avenue, Mt. Eden, Auckland, New Zealand.
Jones, D. A. G.....	June, 1951 ...	Fairfield Experimental Horticultural Station, Esprich, Kirkham, Lancs.
Joy, G. S.....	May, 1946 ...	Emmetts Lodge, Ide Hill, Sevenoaks, Kent.
Kemp, H. W.....	April, 1926 ...	c/o Messrs. Sutton & Sons, and 421, London Road, Reading, Berks.
*Knight, F. P.....	July, 1929 ...	Director, R.H.S. Gardens, Wisley, Surrey.

<i>Name</i>	<i>Left Kew</i>	<i>Present Position and Address</i>
*Lambert, J.....	June, 1907 ...	P.O. Box 5515, Daytona Beach, Florida, U.S.A.
Lavender, F. R.....	Sept., 1949 ...	c/o Parks Dept., Great Yarmouth.
*Leith, G. J.....	Mar., 1937 ...	c/o Parks Dept., Town Hall, York House, Twickenham, and Flat 1, The Library, Rose Hill, Hampton, Middlesex.
*Letch, Mrs. A. J. (Evans)...	Sept., 1945 ...	The Old School, Bradwell, Nr. Braintree, Essex.
Littlewood, G.....	Sept., 1952 ...	4, Wensley View, Leeds 7.
Lockley, Ralph E.....	April, 1948 ...	Ivy Farm Cottage, Ivy Farm Lane, Canley, Coventry, Warwicks.
*Long, Major F. R., A.H.R.H.S.	April, 1908 ...	47, Eastbourne Road, Port Elizabeth, S. Africa.
*Marriott, W. E.....	July, 1904 ...	3, Altair Avenue, off Taunton Road, Pietermaritzburg, Natal, S. Africa.
Massey, A.....	Oct., 1954 ...	Worcester Training College, Henwick Grove, Worcester.
Maunder, P.....	April, 1954 ...	18, Shelly Grove, West Hartlepool, Co. Durham.
*Maw, H.....	Feb., 1924 ...	Address Unknown.
*McCulloch, Mrs. E..... (Thompson)	Aug., 1944 ...	9, Third Avenue, Kenilworth, Kimberley, Cape Province.
McLachlan, P. A.....	Mar., 1952 ...	171, Staines Road, Twickenham, Middx.
McLachlan, D. D.....	Mar., 1952 ...	7, Hazleton Road, Liverpool 14.
Medcalf, John G.....	April, 1948 ...	1, Summerfield Road, Dudley, Worcs.
Meherne, C. D.....	Mar., 1947 ...	110, Scarborough Road, Sumner, Christchurch, N.Z.
*Melles, Major A. B., M.B.E., N.D.H.	Nov., 1915 ...	Inspector, War Graves Commission, S.W. District, St. Marks House, St. Marks Avenue, Salisbury, Wilts.
Mellors, G.....	Sept., 1952 ...	Asst. S., Parks Dept., Town Hall, Uxbridge, and 15, Meadowview, Uxbridge, Middlesex.
Nelson, J.....	Aug., 1945 ...	S., Parks Dept., Acton.
*Nicholls, Matthew.....	May, 1897 ...	Owlsmoor, 34, Mill Lane, Sevenoaks, Kent.
Rattenbury, H. C. P.....	Oct., 1951 ...	London County Council, Avery Hill Halls, Avery Hill Road, Eltham, S.E.9.
Ravenscroft, A.....	Jan., 1951 ...	Asst. S., Parks Dept., Municipal Offices, Harrogate, Yorks.
*Ritchings, H.....	April, 1927 ...	Waterfall Gardens, Penang, Malaya.
Roberts, M.....	Oct., 1954 ...	c/o Parks Dept., Hammersmith, W.
Robertshaw, P.....	Aug., 1922 ...	80, Chelsea Drive, Durban North, Natal, South Africa.
Robinson, C.....	Dec., 1931 ...	Manager, Leicester Parks Dept., Nurseries, Rotherby, Nr. Melton Mowbray, Leics.
*Robson, C. H. A.....	May, 1934 ...	Byeways, Patching Hall Lane, Chelmsford, Essex.
Rymer, Miss N. B.....	Sept., 1946 ...	8, Fern Street, Brampton, Ontario, Canada.
Ryneveld, C. C., van.....	July, 1938 ...	Deputy D., Parks, Recreation and Beaches Dept., Durban, Natal, South Africa.
Sayer, H. W.....	June, 1924 ...	Flat 3, 70, Cornwall Road, Harrogate, Yorks.
Sayers, D. W.....	June, 1940 ...	The Flat, Beckworth, Lindfield, Sussex.

<i>Name</i>	<i>Left Kew</i>	<i>Present Position and Address</i>
*Short, J. G.....	April, 1940 ...	Whangare Borough Council, Parks and Reserves Dept., and 16 Percy Street, Whangare, N.Z.
Smalley, E.....	Oct., 1954 ...	28, Thornton Road, Childwall, Liverpool 16.
Snow, C., N.D.H. (N.Z.).....	Dec., 1903 ...	70, Franklin Road, Ponsonby, Auckland, N.Z.
*Spooner, Herman.....	July, 1901 ...	"Malino," 5, Jacklyn Close, off Clive Avenue, Prestatyn, Flintshire.
*Stewart, W. E., N.D.H.....	Aug., 1928 ...	Address unknown.
Tapson, O. V.....	April, 1954 ...	c/o Waterer, Son & Crisp, Twyford, Berks.
Taylor, H.....	Mar., 1953 ...	
Taylor, J. O.....	Oct., 1947 ...	N., 74, Hean Hay Road, Halswell, Christchurch, N.Z.
*Thorns, F. W.....	Aug., 1928 ...	D. Parks, Recreation and Beaches Dept., Durban, Natal, South Africa.
Tindall, H. B., B.Sc. (Hort.), N.D.H.	Aug., 1946 ...	Horticulturist, Dept. of Agriculture, New England, Freetown, Sierra Leone, B.W. Africa.
Towle, P.....	April, 1954 ...	c/o Parks Dept., Nottingham.
*Wallace, J. C., M.C.....	April, 1912 ...	Address unknown.
*Walsh, C. S.....	Oct., 1914 ...	Address unknown.
Wassell, George.....	Mar., 1935 ...	10, Hillfield Gardens, Muswell Hill, London, N.10.
Watson, G.....	Oct., 1954 ...	c/o Parks Dept., Johannesburg, Transvaal, S. Africa.
Werder, Horst A.....	Mar., 1938 ...	31, Cue Racine, Montrouge (Seine), France.
*Western, Miss P.....	Oct., 1948 ...	Hale, Fording Bridge, Hampshire.
Wharton, K.....	Oct., 1949 ...	Dewsbury Parks Dept., Yorks., and "Roselea," 54, Farne Avenue, Alverthorpe Road, Wakefield, Yorks.
Wheatcroft, P.....	Oct., 1954 ...	Red House, London Road, Ware, Herts.
Wheeler, Gerald F., N.D.H.	Feb., 1935 ...	Hort. Station, Burlingham, Norfolk.
*Wood, P. L. D.....	Dec., 1950 ...	c/o Box 189, Salisbury, S. Rhodesia.
Worraker, E. N.....	Oct., 1954 ...	c/o East Malling Research Station, East Malling, Maidstone, Kent.
Wray, Edward V.....	Nov., 1948 ...	South Holderness County Secondary School, Preston, Nr. Hull, Yorks.
Zammit, Salvino J.....	Dec., 1932 ...	S., Govt. Farms and Agricultural Organizer, Dept. of Agriculture, Government Farm, Ghammieri, Malta.

RULES



1. The Society be called the "KEW GUILD."
2. The Guild shall consist of all who are or have at any time been employed as Student Gardeners or occupied a position of responsibility in the Royal Botanic Gardens, Kew.
3. The object of the Guild shall be to promote mutual and friendly intercourse between past and present Kewites, and to further their interests.
4. The business of the Guild shall be conducted by a Committee constituted as follows: Seven present Kewites, one Sub-Foreman, one Student Gardener and twelve Old Kewites. Four non-official members (three of whom shall be Old Kewites) shall retire annually in rotation, and shall not be eligible for re-election for at least twelve months. The election shall take place at the Annual General Meeting. Candidates may be proposed by any member of the Guild provided that the names of Candidates be sent in writing to the Secretary at least seven clear days before the Annual Meeting. A Chairman of Committee shall be elected by the Committee for a period of three years.
5. There shall be a Secretary and a Treasurer, who shall be elected annually at the Annual General Meeting.
6. The annual subscription shall be 7/6, payable on January 1st, to entitle members to all publications of the Guild. A member whose subscription is three years in arrears shall be notified and shall cease to receive the publications of the Guild until his arrears be fully paid.
7. *Any member whose subscriptions are fully paid, may, on the payment of one subscription of £5 5s. 0d., 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.

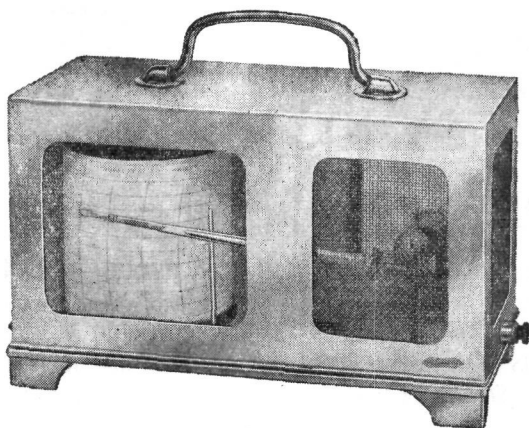
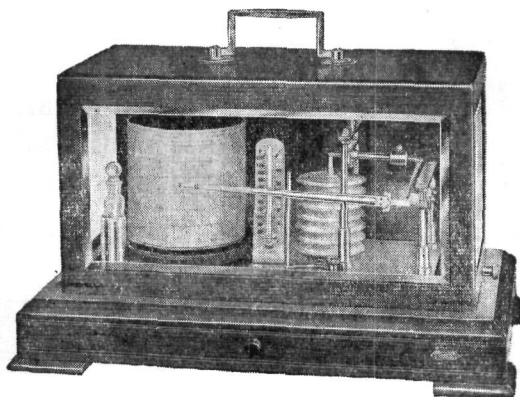
8. The Guild shall publish annually a journal containing a list of the Kew Staff, from the Director to the Student Gardeners, a list of Old Kewites, with the date of their leaving Kew and their present position and addresses, and such other information as shall appear desirable.
9. An Annual General Meeting shall be held at Kew on the last Saturday in August, when the Committee's Report and Statement of Accounts shall be submitted and any business of a general nature transacted. The Annual General Meeting shall be followed by a tea.
10. There shall be a voluntary Benevolent Fund for the purpose of helping Kewites who may be in urgent need of pecuniary assistance.
11. *Unpaid volunteer Students shall be eligible for Associate Membership of the Guild, provided always that they have paid a minimum life subscription of £3 3s. 0d., (payable in advance) entitling them to such privileges as detailed in Rule 7, and have completed not less than 12 months' service at Kew.
12. The Rules shall not be altered except by a two-thirds majority at the Annual General Meeting. Any proposals for the alteration of Rules shall be sent to the Secretary in writing at least twenty-one clear days before the date of the Annual General Meeting, and shall be sent by him to members resident in the United Kingdom at least seven clear days before the date of the Annual General Meeting.

* Election of Life Members discontinued until further notice.—

A.G.M., 1952.



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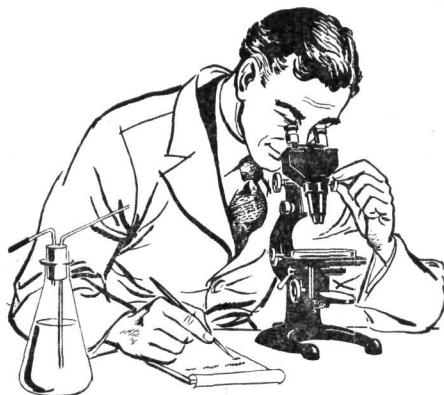
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pests**

and

**Foliage
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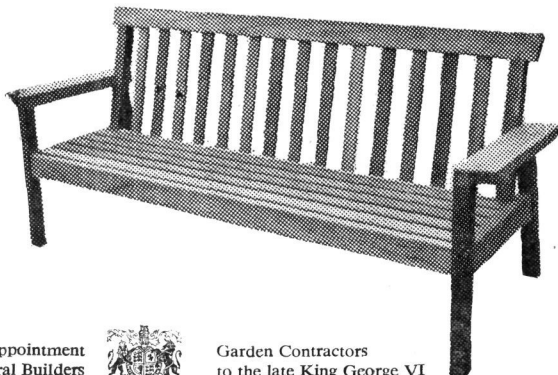
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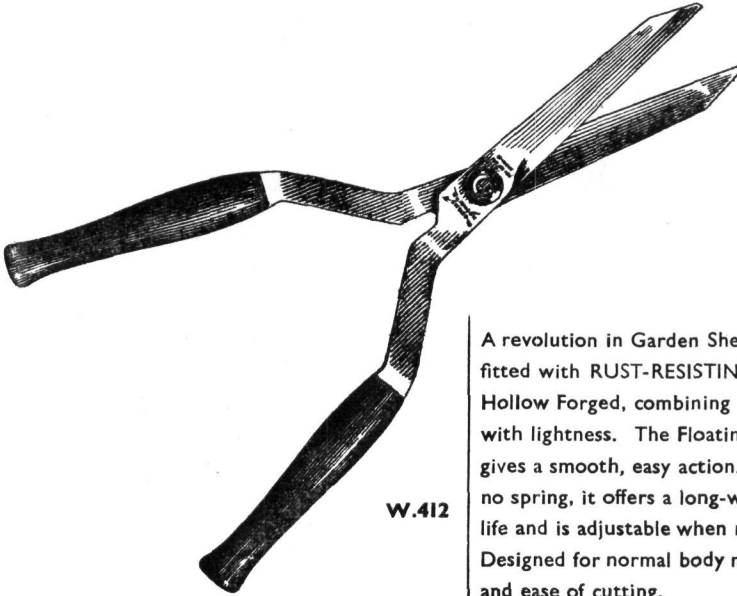
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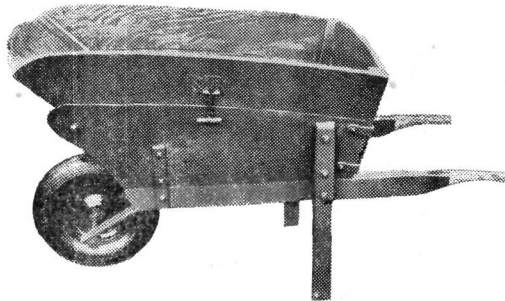
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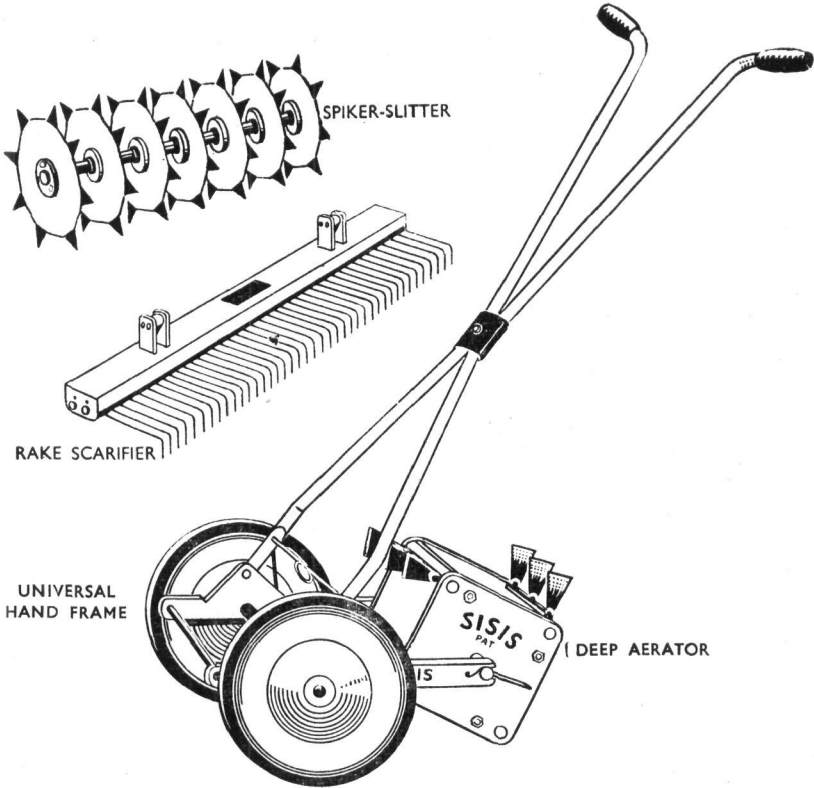
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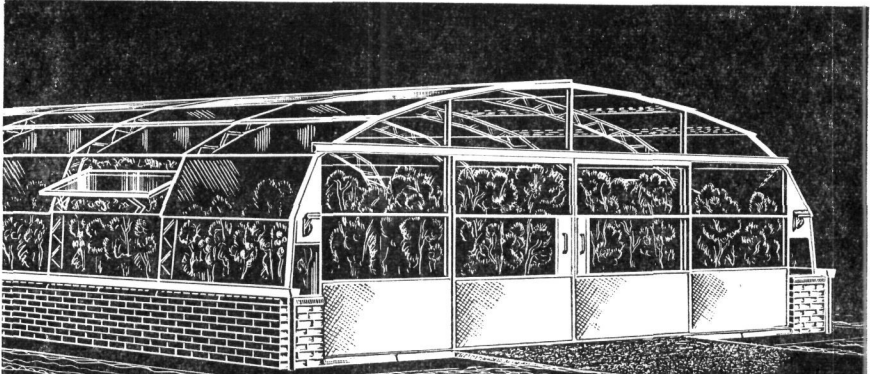
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