

CAPTAIN A. W. HILL, M.A., Sc.D., F.L.S.

CAPTAIN A. W. HILL, the Assistant Director of the Royal Botanic Gardens, Kew, was born at Harrow on 11 October, 1875. From a preparatory school at Margate he entered Marlborough College in 1890, and while there developed and displayed the tastes for those biological studies in whose prosecution he is so distinguished. He went from Marlborough as an Exhibitioner to King's College, Cambridge, in 1894, becoming a Scholar of his College in 1896 and obtaining a First Class in Part I. of the Natural Science Tripos in 1897 and a First Class in Part II. of the same Tripos in 1898. From 1898 onwards he worked with Dr. W. Gardiner, F.R.S., then University Lecturer in Botany, becoming himself Senior Demonstrator in Botany in 1899 and University Lecturer in Botany in 1905. Elected a Fellow of his College in 1901 he was appointed Dean in December 1906. Distinguished at Cambridge as a teacher and as an exponent of laboratory research, the interest in field-work which marked his school days never abated. This affection for natural history study led to a journey in Iceland while he was Senior University Demonstrator, and to an important expedition to South America in 1902-3.

In 1907 on his appointment to the Kew Staff, Captain Hill resigned his University Lecturership and his post as Dean of King's College. The energy and enthusiasm with which he threw himself into the work and life of Kew are well known to all members of the Guild. While his interest in the problems of a morphological and physiological nature, to whose elucidation his attention was chiefly given at Cambridge, has remained as great as ever and has resulted in papers that are of as much interest to botanical science as they are to horticultural practice, he has shown equal capacity in carrying out what is the outstanding business of Kew, the task of applying botanical knowledge of whatever kind to the furtherance of economic ends. In connection with this task he has shown also the patience and the judgment required in the arduous duty of determining with that precision which is essential if economic work is to be of any value, the plants whence economic products are obtained. Notwithstanding the preoccupation of these pursuits Captain Hill was able to pay a naturalist's visit to Algeria in 1910 and to combine field-study with his other work during an official visit to the West Indies in 1912. His powers have since then been displayed in another field. At the request of the War Office, Kew, with the approval of the Board of Agriculture, has since the establishment of the Department of Graves Registration and Enquiries given all the help in the power of the institution to that Department and Captain Hill, from the outset of its operations, has held as one of the officers of the Department on the one hand, and as the representative of Kew on the other, the extremely responsible post of Botanical Adviser.

In none of the activities connected with Kew have Captain Hill's sympathy and interest been more warmly shown than in the case of our Guild, which he has served, greatly to its benefit, as Chairman of the Guild Committee since 1913. Members, knowing as they do how greatly indebted the Guild is to his judgment and foresight during the past seven years, regard themselves as singularly fortunate in having Captain Hill as their President-elect for 1920.

D. P.

ANNUAL REPORT.

(1918-1919.)

THE COMMITTEE have pleasure in presenting the Report for the year ending April 30, 1919.

The Annual General Meeting was held in the Lecture Room, Royal Botanic Gardens, Kew, on June 8, 1918, at 6 P.M. The President, Mr. Charles H. Curtis, occupied the Chair, and was supported by nearly 40 Members.

Since the last Annual Report, 27 Life Subscriptions have been paid. The total number of Life Members is now 382.

The receipts for the year amounted to £71 6s. 5d., and the expenditure to £78 11s. 5d. As will be seen by the Capital Account there is a deficit of £14 11s. 7d. This is due to the increased cost of printing the *Journal*. To meet the increase, the raising of the Annual Subscription is necessary. As this will mean an alteration to Rule 6, the Committee have placed a resolution on the Agenda for discussion this evening.

A very considerable number of Members of the Guild who joined His Majesty's Forces have been demobilised since the Armistice, the majority resuming their pre-war positions in civil life. As recorded in the 1919 *Journal* 25 Members have died in the service of their country.

Death has also removed two Past-Presidents—Messrs. William Goldring and Robert Hooper Pearson—Mr. Edgar J. Allard, a valued member of the Committee, and Messrs. William H. Bennett and Walter Thomson.

The Members of the Committee who retire under Rule 4 are: Messrs. J. W. Besant, H. Cowley, J. H. Holland and A. Hosking; the death of Mr. E. J. Allard creates a fifth vacancy. The following have been nominated to fill the vacancies:—Messrs. J. S. Christie, W. Dallimore, R. L. Harrow, W. H. Johns, and W. L. Lavender. Mr. M. Vardy representing the sub-foremen and Miss Madan the gardeners.

Messrs. J. Aikman and T. W. Taylor are recommended as Auditors for the ensuing year.

With the release of Allied Prisoners of War there is no further need for the Guild Prisoners of War Fund. The Balance in hand of 13s. 2d. the Committee recommend should be added to the General Benevolent Fund Account.

For the William Crisp Fund there is now only a balance in hand of £5 9s. 0d. The amount necessary to complete the payment of 5s. per week to Mr. Crisp for the remainder of the year the Committee propose to vote from the Benevolent Fund. At the next Annual General Meeting it will be necessary to decide whether payment should continue from the Benevolent Fund, or whether a further special appeal on Mr. Crisp's behalf should be issued.

The Committee, and a Sub-Committee, have very carefully considered the subject of a War Memorial to place on record the part taken by those connected with Kew in the Great War. Preliminary details of a scheme have been prepared for discussion this evening.

Balance Sheet, 1918-1919.

<i>Receipts.</i>		<i>Expenditure.</i>	
	£ s. d.		£ s. d.
Balance from 1917-18.....	13 7 9	Journal Printing A/c	62 10 0
Life Subscriptions.....	27 0 0	Postage of Journals	2 7 0
Annual Subscriptions and Sales	18 16 10	Secretary and Editor's Honorarium	10 0 0
Interest on £300 New South Wales Stock	7 7 0	Donations—	
Interest on £25 War Loan Stock	1 6 2	Gardeners' Royal Bene- volent Institution.....	1 1 0
Interest on Deposits in Post Office Savings Bank	0 11 5	Royal Gardeners' Orphan Fund	1 1 0
Advertisements in Journal ...	16 5 0	Postage and Stationery	1 12 5
	<u>£84 14 2</u>	Balance in hand	<u>6 2 9</u>
			<u>£84 14 2</u>

Capital Account.

<i>Liabilities.</i>		<i>Assets.</i>	
	£ s. d.		£ s. d.
Thomson Bequest	92 8 6	£300 New South Wales 3½ per cent. Stock	300 0 0
To 382 Life Subscribers at the two-thirds rate as per Rule 7	254 13 4	£25 5 per cent. (1929- 1947) War Loan Stock..	25 0 0
Balance due to Printers ...	2 2 6	Deposits in Post Office Savings Bank	4 18 0
	<u>£349 4 4</u>	Balance in hand with Treasurer	1 4 9
		Advertisement due	3 10 0
		Deficit	<u>14 11 7</u>
			<u>£349 4 4</u>

Benevolent Fund.

<i>Receipts.</i>		<i>Expenditure.</i>	
	£ s. d.		£ s. d.
Balance from 1917-1918.....	10 4 5	Balance in Post Office } Savings Bank	17 10 11
Donations	6 17 0		
Interest on Deposit in Post Office Savings Bank	} 0 9 6		
	<u>£17 10 11</u>		<u>£17 10 11</u>

The William Crisp Fund.

<i>Receipts.</i>		<i>Expenditure.</i>	
	£ s. d.		£ s. d.
Balance from 1917-1918	23 3 9	Paid to Mr. Crisp	18 0 0
Interest on Deposit in } Post Office Savings Bank. }	0 6 3	Postage	0 1 0
		Balance in Post Office } Savings Bank..... }	5 8 7
	<u>£23 10 0</u>	Cash with Treasurer	0 0 5
			<u>£23 10 0</u>

Prisoners of War Fund.

<i>Receipts.</i>		<i>Expenditure.</i>	
	£ s. d.		£ s. d.
17 Donations	4 17 6	Purchase of clothing for } Mr. G. Neville	3 0 0
		2 parcels sent to Mr. A. E. } Duley	0 16 0
		Printing and Postage	0 8 4
	<u>£4 17 6</u>	Balance	0 13 2
			<u>£4 17 6</u>

Compared with Vouchers, Bank-book, Stock Receipts, etc.,
and found correct,

J. COUTTS, *Treasurer.*
A. OSBORN, *Secretary.*

J. AIKMAN,
CHARLES H. CURTIS, } *Auditors.*

May 14th, 1919.

ANNUAL GENERAL MEETING.

THE Annual General Meeting of the Guild was held at the Dean Hotel, Oxford Street, W., on May 21, 1919, at 6.30 P.M. In the absence of the retiring President, Mr. J. A. Gammie, through ill-health, Captain A. W. HILL (Chairman of Committee) occupied the Chair.

The Minutes of the last Annual General Meeting being printed and circulated in the 1919 *Journal*, the CHAIRMAN suggested that unless any members present desired to comment on them, he would ask someone present to move that they should be taken as read. Mr. C. H. CURTIS moved their adoption, this was seconded by Mr. A. HOSKING, and agreed to.

The Annual Report and Balance Sheet, copies of which were in the hands of those present, were read by the Secretary, Mr. A. OSBORN.

The CHAIRMAN suggested that as the Committee's recommendation in the Report to raise the Annual and Life Membership Subscriptions would be better discussed separately, with the exception of this portion he would move the adoption of the Report and Balance Sheet. This was seconded by Mr. A. HOSKING, and agreed to.

The re-election of Mr. J. Coutts as Treasurer was proposed by Mr. C. P. RAFFILL and seconded by Mr. H. COWLEY, and carried. Mr. C. H. CURTIS proposed the re-election of Mr. A. Osborn as Secretary. This was seconded by Mr. W. HALES and carried.

The SECRETARY then pointed out that, while they were together that evening, it was desirable to discuss fully the raising of the Annual and Life Membership Subscriptions; if agreed to, it would mean alterations to Rules 6 and 7. According to Rule 11 this can only be done by the Secretary giving seven clear days' notice to members resident in the United Kingdom. Some present thought that the necessity of an increase was so obvious they could deal with it that evening. In supporting the raising of the subscriptions, Mr. CURTIS pointed out that it was due almost entirely to the increased cost of printing the *Journal*. He knew something of the cost of paper and printing, and there seemed little possibility of any appreciable decrease for some considerable time, if at all. In answer to Mr. Curtis, the SECRETARY said that the cost of a single copy of the 1919 *Journal* worked out at about 1s. 10d., to which must be added the postage. It was desirable to publish the full Directory again in the 1920 *Journal*, which would add to the cost. Mr. COUTTS spoke in favour of the increase, as he felt it was desirable to maintain the present standard of the *Journal*. The Directory portion was considered by many, notably our Overseas members, as the most useful part of the *Journal*. Comments from others present followed similar lines. The CHAIRMAN said while it seemed to be the unanimous opinion of those present that the membership subscriptions should be raised, to be in order, notice must be given according to Rule 11. One of two things must be done, either

summon a Special General Meeting or defer the subject to the next Annual Meeting. Mr. COWLEY thought it was desirable to raise the subscriptions before the issue of another *Journal*, and proposed that the Secretary should be instructed to call a Special General Meeting. This was seconded by Mr. CURTIS and carried.

The next item on the agenda was the War Memorial which the Committee, and a War Memorial Sub-Committee, had under consideration since the last Annual Meeting. They recommend that, subject to the approval of the President of the Board of Agriculture and Fisheries being obtained, a Commemorative Tablet with the names of all those connected with the Gardens who had lost their lives (33 in number) should be fixed on the back wall of the Temple of Arethusa. Two sketches by Sir Robert Lorimer were passed round for comment, one of two panels, and the other three panels, the cost of which would be about £150 and £135 respectively. The CHAIRMAN said that he had discussed the subject with the Director, but before approaching the Board on the subject it was necessary that this or some other scheme should have the approval of the General Meeting. A number present asked questions and made various comments and suggestions while the sketches were being passed round. Eventually Mr. COWLEY proposed and Mr. CUNDY seconded a resolution that the Committee should be empowered to proceed with the scheme for a 3-panel tablet at an estimated cost of £135. This was unanimously agreed to. Several present promised subscriptions.

Mr. CURTIS proposed that members should be allowed to bring their wives to the Annual Dinner. They would of course not attend the Annual Meeting. Mr. COWLEY said he should be pleased to second the innovation if Mr. Curtis would extend the proposal to include the husbands of lady members. This Mr. Curtis agreed to do, and the proposal was carried with two dissentients.

Mr. CURTIS said they could not close the Meeting without expressing their gratitude to the Committee for the work they had done. Particularly were they indebted to the Chairman of the Committee—he was also their Chairman that evening,—they would all wish him to say how much they appreciated his interest in their Guild. Mr. BAND seconded the vote of thanks, which was carried enthusiastically.

Late arrivals found some difficulty in obtaining admission to the meeting. This was partly due to members congregating near the door, in addition to which between the time of arranging and holding the meeting the management of the hotel had been called upon to provide additional accommodation for officers, and on arrival the billiard room promised for our meeting contained four beds.

THE DINNER.

THE Committee experienced considerable difficulty in obtaining suitable accommodation several months before the date fixed for our Annual Meeting—the Holborn Restaurant were unable to offer any accommodation. Eventually the management of the Dean Hotel in Oxford Street, better known as a residential hotel, consented to do their best for us, though only once before had they attempted to seat more than 100 diners. We numbered 103.

In the absence of the President, Mr. George Stanton, through ill-health, Captain A. W. HILL occupied the Chair. The tables had been very tastefully decorated with Azaleas and table plants by several of our lady members, and when all were seated the banqueting hall presented a most attractive appearance.

The toast of "The King" having been duly honoured, the CHAIRMAN rose to propose the toast of "The Kew Guild." Captain Hill said they had received letters from their retiring President, Mr. J. A. Gammie, and Mr. G. Stanton who should have presided that evening. Both were getting on in years, and if not present in person were no doubt thinking of them. The meeting this evening might be described as historical; they had not dined together since 1915, and it was very gratifying to see such a large and representative gathering. In the Great War, as they had read in the *Guild Journal*, our members had taken a very active part. Lt.-Col. W. B. Little had gained the D.S.O. and M.C. Major T. F. Chipp, Lieut. J. C. Wallace, and Captain R. R. Hayes, who was present with them this evening, had gained Military Crosses, and Lieut. J. Sparrow and Sergt. Kett, who were also with them, Sergt. Dunk, and Mr. J. W. Watkins, Military Medals. It added to their pleasure that evening to greet so many returned warriors. To the outsider it was not so apparent, as most of them were already back in their peaceful occupations. They would expect him to refer to the absent ones. Their loss was deeply regretted—25 members had died in the service of their country. Those who were present at the Annual Meeting an hour ago would know of the steps that were being taken to erect a permanent memorial to their memory. It was proposed to place a Commemorative Tablet on the back wall of the Temple of Arethusa at Kew. He hoped that the necessary funds would be forthcoming to make it a fitting and worthy memorial to our heroes. Members of the Guild were represented on most if not all the battle areas—France, Italy, Salonica, Palestine, Mesopotamia, Gallipoli, India, German East and German West Africa. With regard to Kewites still on active service, they had four officers in France and one in Italy attached to the Imperial War Graves Commission; Lieut. Grinham was with them that evening. In addition to those officers, Corpl. Biggs is still, and Sergt. Raffill has been, working in the same department.

Death had robbed them of a number of well-known members—

Mr. Goldring, Mr. Pearson of the *Gardeners' Chronicle*, and Mr. Masee, all Past Presidents of the Guild. They also deplored the loss of Mr. Allard, one of their younger members and a member of the Committee.

Recent appointments of members of the Guild have been numerous, one in particular he should like to mention being Mr. Hosking to the John Innes Horticultural Institution at Merton.

As to Kew itself—on the whole, considering all things, it had kept up a very creditable appearance. Kew was very fortunate in being able to retain the services of four of the foremen, and to have been able to engage the services of Mr. W. L. Lavender temporarily to take charge of a department, during Mr. Raffill's absence. The speaker was pleased to see so many ladies present that evening, for to them they owed a very great deal for their assistance in the upkeep of the usual standard of Kew. Kewites were expected to uphold the work of Kew wherever they might be, and if the Horticultural World does not look for men from our leading Botanic Garden, he, for one, would be very much surprised. He added that the Director had asked him to say how sorry he was that he could not be present, and to express his wishes to all for a happy evening. In concluding, Captain HILL said: With the toast of the Kew Guild I wish to couple the name of Mr. W. W. Pettigrew, who has not only had the work of the parks to occupy his time, but has helped to feed Manchester—or shall I say to see them properly fed?

Mr. W. W. PETTIGREW, in responding, said he was fortunate in having copious notes for his speech handed to him by the Secretary. He welcomed their members back from the various services. They had a large gathering, but familiar faces he would like to see were absent. They would pardon him for mentioning Mr. Watson, Mr. Bean, and Mr. Aikman. Kew has sent her share of men to fight their battles. He was only personally acquainted with two, but taking them as a sample of the men he had a very good idea of the men who had fallen for them. He sincerely hoped the idea of a permanent memorial in the Gardens would be carried out. He should like to mention the recent return of Mr. E. H. Wilson from Japan and his appointment as Assistant Director of the Arnold Arboretum. The Chairman had pointed out that the times in front of us were strenuous. The speaker felt that Kewites would rise to the occasion, as for instance they had done during the War. Those who took full advantage of the Kew training and the associations there made, though they might not think so at the time, were able to fit themselves for very varied and responsible positions as opportunity occurred.

Mr. Pettigrew concluded by asking those present to drink to the health of their Chairman that evening. He had done a great amount of work for the Guild, and it was largely due to Capt. Hill that they were able to have such a successful gathering that evening.

The function was generally voted to be one of the most enjoyable that had been held. The dinner was very well served by waitresses. Songs by Miss E. M. Harper and Mr. J. M. Hillier were much enjoyed, and one of our lady members, Miss S. W. Bishop, presided at the

piano. Very full advantage was taken of opportunities between music and speeches to move about the room to renew old friendships and meet present-day Kew men. The number of lady members present (24) was easily a record for the dinner.

The following were present:—

Hill, Captain A. W.	Freda, Miss A. B.	Marks, J.
(<i>Chairman</i>).	Freeman, J.	McIver, D. G.
Alcock, Mrs. N. L.	Green, Miss M. L.	Osborn, A.
Baker, A. F.	Griffin, Miss A. N.	Parrott, Miss P.
Band, R.	Grinham, Lieut. F. B.	Pettigrew, A. A.
Bartlett, A. C.	Grout, G.	Pettigrew, W. W.
Bates, G.	Hales, W.	Philp, F. J.
Bintner, J.	Harborne, P. W.	Proudlock, R. L.
Bishop, Miss S. W.	Harding, C.	Raffill, C. P.
Brain, H. J.	Harper, Miss E. M.	Ricelli, E.
Brook, E.	Harper, Miss K.	Roberts, A.
Butler, F. B.	Harvey, Miss V. M. H.	Robshaw, Miss N.
Capsticks, W. H.	Hayes, R. R.	Rogers, F. M.
Chapman, H. L. R.	Hillier, J. M.	Sanders, H.
Christie, J. S.	Holland, J.	Skam, S. A.
Clarke, N. K.	Horton, E.	Smart, A. E.
Clegg, A. S.	Hosking, A.	Smith, E. J.
Coates, C. F.	Hughes, A.	Sparrow, J.
Coates, Mrs. D. B.	Hunter, T.	Spooner, H.
Collins, W.	Hutchings, Miss A.	Sprague, T. A.
Cook, F.	Hutchinson, J.	Sudell, R.
Cooper, E.	Irving, W.	Taylor, T. W.
Cope, Miss G.	Jacobs, Miss A.	Thornton, A. J.
Corbett, G.	Joshua, Miss L.	Tinley, G. F.
Cotton, A. D.	Kennedy, W. A.	Vardy, M.
Coutts, J.	Kermode, Miss D. M.	Wakefield, Miss E. M.
Cowley, H.	Kett, R.	Walsingham, F. G.
Craig, Mrs. A. P.	Keys, A.	Walters, E. A.
Cundy, C.	Landau, Miss I. L.	Wareham, Miss E.
Cunningham, J. W. M.	Lavender, W. L.	Warren, C.
Curtis, C. H.	Lines, Miss M.	Weathers, J.
Dallimore, W.	Long, G. S.	Weeks, C. E.
Davidson, Miss H. W.	Longwire, F. J.	Whipps, A. C.
Dollman Miss R.	Mack, F.	Young, W. H.
Field, W.	Madan, Miss H. P.	

Arrangements have been made to hold the 1920 Dinner at the Holborn Restaurant on the evening of June 2, the second day of the Chelsea Show.

OLD KEVITES AT HOME.—The following members of the Guild residing abroad have visited Kew during the year:—Messrs. J. Anderson* (W. Africa), J. W. Anderson (Johore), A. B. Bell (Nigeria), F. Birkinshaw (Mauritius), A. E. Brown* (Canada), E. Brown (Uganda), T. F. Chipp* (Singapore), G. H. Crouch (Egypt), F. J. Evans (Cameroons), W. C. Fishlock (Virgin Islands), L. W. Gardner (Rhodesia), H. Green* (Hong Kong), A. E. P. Griessen (India), T. H. Hunter (Gold Coast), G. T. Lane (India), G. B. Mould (India), W. V. North (India), T. H. Parsons* (Ceylon), Mr. and Mrs. W. H. Patterson (Gold Coast), W. Robson (Montserrat), P. T. Russell (India), W. N. Sands (St. Vincent), J. D. Snowden (Uganda), C. B. Ussher* (B. E. Africa), F. G. Walsingham (Egypt), J. G. Watson (F. Malay States), R. O. Williams (Trinidad).

* Demobilised officers awaiting facilities to return to duty.

SPECIAL GENERAL MEETING.

IN accordance with a resolution carried unanimously at the Annual General Meeting held in London on May 28, 1919, a Special General Meeting was held in the Lecture Room, Royal Botanic Gardens, Kew, on Tuesday, October 7, 1919, at 6.30 P.M. The alteration of the Rules as stated below were agreed to.

4. The business of the Guild shall be conducted by a Committee constituted as follows:—Seven present Kewites, one subforeman, one young 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.

NOTE.—Rule 4 at present restricts the position of Chairman to present Kewites.

6. The annual subscription shall be 2s. 6d.*, 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 40s.† become a Life Member, and be entitled to all the privileges of the Guild without further payment.‡ A sum representing not less than two-thirds of each life subscription shall be invested in the names of the Trustees and the liabilities to Life Subscribers shall be clearly shown in the annual statement of accounts.

In opening the meeting the Chairman, Captain A. W. HILL, regretted to see so few present. This was no doubt largely due to the railway strike, but as notices had been sent to all the members resident in the United Kingdom, whose addresses were known, it was impossible to postpone the meeting. The Committee had gone very fully into the financial position of the Guild and one of two courses must be followed, either an increase in the Annual and Life Subscriptions, or drastic reduction in the size of their *Journal*. At their Annual Meeting in May the first course was decided upon, but as a

* Old Rule 1s.

† Old Rule 20s.

‡ Present Life Members are invited to contribute towards the extra cost of producing the *Journal* either by an annual payment of 1s. 6d. or by an additional subscription.

general notice to all members resident at home is necessary to alter the rules their meeting that evening was convened.

The alteration to Rule 4 was proposed by Mr. W. DALLIMORE and seconded by Mr. J. S. CHRISTIE and unanimously agreed to.

The increase in the Annual Subscription from 1s. to 2s. 6d. was proposed by Miss E. M. WAKEFIELD and seconded by Mr. W. DALLIMORE and carried.

The proposal to double the Life Subscription was very freely discussed. The CHAIRMAN said the Committee realised that it was quite optional whether present Life Members paid an additional £1 or not, but they felt that very few could or would object who had the best interests of the Guild at heart. Miss WAKEFIELD felt that it would be very hard on their oldest members to try to compel them to pay an additional £1. With new members it was quite different. If the footnote was altered suggesting or inviting an additional subscription, she would be quite willing to support the alteration. Eventually Mr. A. C. BARTLETT proposed and Mr. T. W. TAYLOR seconded the alteration to Rule 6 with the following footnote:—
“Present Life Members are invited to contribute towards the extra cost of producing the *Journal* either by an annual payment of 1s. 6d. or an additional subscription.”

Among those present in addition to members whose names appear in the above report were the following:—Miss O'Reilly, Messrs. C. B. Ussher, J. D. Snowden, W. H. Young, W. L. Lavender, T. G. Pearce, C. P. Raffill, J. W. Wright, J. Hutchinson, J. Coutts, A. Osborn, and a number of young gardeners.

COMMITTEE MEETING.

A meeting was held in the Lecture Room on Thursday, November 13, 1919, at 6 P.M. Mr. W. HALES was voted to the Chair.

The most important items of business dealt with were as follows:—

The election of Mr. C. H. CURTIS as Chairman of the Committee for the term of three years.

The nomination of Captain A. W. HILL as President of the Guild for 1920–21.

The TREASURER reported that the Crisp Fund would be exhausted by April. It was felt that another special appeal was not desirable, but no doubt on reading in the *Journal* of the state of the Fund some additional help would be forthcoming. They might also consider helping Mr. Crisp if the necessity arose from their General Benevolent Fund. The possibility of help from the Gardeners' Royal Benevolent Institution was discussed, and the Secretary was asked to address a letter to the Committee of that Institution on Mr. Crisp's behalf. Since the meeting the Secretary has received a cheque for £6 voted to Mr. Crisp from the “Good Samaritan Fund.”

WAR MEMORIAL.

SUBJECT to permission being obtained from the Government Department responsible for the management of Kew Gardens, it was decided, at the last Annual General Meeting, to erect a suitable memorial to those thirty-three members of the Guild and other employees from the Royal Gardens who made the supreme sacrifice in the Great War. The Director has obtained sanction from the President of the Board of Agriculture and Fisheries to erect such a memorial, which will take the form of a commemorative tablet placed on the inner wall of the Temple of Arethusa, situated almost midway between the Victoria Gate and Museum No. 1.

Two additional names have to be added to the Tablet Pte. Albert Wright and L.-Cpl. Sidney Cockroft.

Through the kindness of the Chairman, who approached Sir Robert Lorimer, this latter gentleman submitted two designs, both of which were regarded favourably by those present at the Annual Meeting, the Committee being left to make the final choice. The design has since been worked out in detail, and it is estimated that the cost of erecting the memorial will be about £150. The Committee invites donations to the Memorial Fund, and they may be sent to the Treasurer, Mr. J. Coutts, 3 The Gables, Kew Green.

At a Committee Meeting held on November 13 it was decided not to commence definite work upon the Memorial until donations amounting to £100 were in the hands of the Treasurer. At the time of going to press donations totalling £75 had been received from members. At this date very few of our Overseas members have had time to respond to the circular inviting subscriptions.

On Peace Day, July 19, three young trees, two Common Oaks and a Horse Chestnut, were planted in the Gardens not far from Museum No. 1. They were grown from seeds picked up on the battlefields of Verdun, France, in 1917. A considerable quantity were sent to this country by the Mayor of Verdun to be sold on behalf of the funds of the Red Cross. A few were sent to Kew with a request to report on their germination. One of the young Oaks is planted within a few yards of the Temple of Arethusa which is to house our War Memorial. In the Arboretum Nursery there are several young plants of *Quercus Aegilops* grown from acorns sent home by an officer from Gallipoli. Perhaps it will be possible to plant one of these also in the vicinity, especially as it is in Gallipoli that the first two of our members to lose their lives, Messrs. C. F. Ball and W. H. Morland, lie buried.

On demobilisation Mr. G. C. JOHNSON was appointed Assistant Horticultural Instructor at the Wrexham Horticultural Training Centre for disabled soldiers and sailors. He now writes to say he is going as Additional Instructor in Horticulture, with another Old Kewite, Mr. A. S. Galt, at Leeds University.

THE NEW FLAGSTAFF.

ONE of the most interesting events of the year 1919, at Kew, has been the erection of the giant flagstaff to replace the old Douglas fir spar erected in 1861 on the site of the former Temple of Victory.

The old spar had been deteriorating for many years and, in addition to surface patches required to make good diseased areas, it became necessary in 1896 to replace 20 feet of the base owing to dry rot. Despite every care, however, the new wood and a further section of the spar became infected with the fungus, and in 1913 it was deemed advisable to lower the spar to the ground for a thorough examination. This resulted in the decision that it would be unwise to re-erect it.

The idea of Kew without her most conspicuous landmark was not to be thought of, and the sympathy of the Agent-General for British Columbia was enlisted. He approached the Government of British Columbia, and orders were issued to the forest officials to secure one of the most perfect Douglas fir trees available, for presentation to the Royal Botanic Gardens, Kew.

How the tree was found and prepared for a flagstaff is described in a pamphlet entitled "How the Big British Columbia Tree became a Flagstaff," published at the Office of the Agent-General for British Columbia. Twelve trees were felled near Gordon Pasha Lake before one was found to fulfil the requirements of the forest officials. This, after the removal of the head, measured 220 feet in length and was 6 feet in diameter at the base and 18 inches inside the bark at the small end. It was hauled 10 miles on a logging railway to the sea and was then towed by a tug to Vancouver. The tree was there trimmed into its present shape and dimensions. The length was reduced to 215 feet, the lower 15 feet being squared with a diameter of 33 inches. From that point to a height of 157 feet the shape is octagonal and the remainder round. When actually raised the pole was a few inches short of 215 feet. The age of the tree is not recorded, but on arrival the base showed 360 annual rings. It was ready for shipment during the summer of 1914, but a difficulty arose in getting a steamer with sufficient deck space to take the load; then the war broke out and delayed matters still more, and it was not until the autumn of 1915 that the owners of the S.S. Merionethshire agreed to accept the tree and transport it to London for the sum of 100 guineas. On reaching the Thames it was unloaded into the water and hauled by a tug to a position opposite the Syon Vista. It was there moored to the bank until, when a favourable tide occurred a few days later, it was possible to float it out of the river on to the towing-path. This was accomplished on January 4th, 1916. A few days later it was rolled over the Ha Ha into the gardens and taken on planks and rollers to a position near its present home. It was there cleaned and creosoted, but owing to the shortage of labour, due to the war, it could not be raised. Eventually it was decided that the Canadian Forestry Corps should be

entrusted with the work of erection, but later on, owing to the difficulty experienced in procuring the necessary appliances and material, before the demobilisation of the Corps, the work was placed in the hands of Messrs. Coubro & Scrutton, London Riggers. They began work during last summer by building a gangway to the top of the mound along which the pole was carried on rollers. A gantry 100 feet high was erected near the position the pole was to occupy, and that, with the aid of three powerful hand winches, was used to raise the pole into position. Altogether the work occupied a period of between three and four months, the final work of erection commencing on October 17th, the pole becoming perpendicular about 3 o'clock in the afternoon of the following day.

In order that the risk of dry rot may be reduced to a minimum and no part of the pole shall be hidden, it has not been lowered into a chamber beneath ground as was the case with the old spar. Instead, a steel axle has been inserted through the base of the pole, the ends fitting into sockets fixed into a reinforced concrete platform. It is held in position by eight strong wire ropes which are secured to two well protected, galvanised iron bands at different heights on the pole, and to strong iron staples embedded into deep concrete in the earth. A flag 36 feet long and 18 feet wide is ready for hoisting on some important public occasion, but so far it has not been flown.

Although not intended as a war memorial, visitors have christened it the "Victory Flagstaff," and the mound on which it stands is now spoken of by visitors as "Victory Hill"; thus the position of the old Temple of Victory has regained its lost honour and glory. W. D.

WEDDING BELLS.

Mr. H. L. R. Chapman to	Miss Gladys H. Chandler	at Kingston-on-Thames.	July 16, 1919.
Mr. T. F. Chipp	„ Miss I. M. Ballinger	„ Gloucester.	Mar. 1, 1919.
Mr. W. Collins	„ Miss Rose Hazell	„ Sundridge.	Nov. 12, 1918.
Mr. F. Flippance	„ Miss Winifred D. Bishop	„ Margate.	Mar. 5, 1919.
Mr. G. Grout	„ Miss Annie Ellis	„ Bryanston Square.	June 10, 1918.
Mr. W. R. Hibbins	„ Miss L. M. Marsland	„ Gate Burton, Lincs.	Apr. 30, 1919.
Mr. A. Keys	„ Miss Isabella C. D. Turnbull	„ Edinburgh.	Dec. 23, 1918.
Mr. A. J. Little	„ Miss Florence Conyard	„ Edmonton.	Dec. 21, 1918.
Miss M. E. Merry-weather	„ Mr. Frank Suckling	„ Southwell.	June 16, 1919.
Miss Dora B. Taylor	„ Mr. W. G. Coates	„ York.	Mar. 9, 1919.

Miss D. Kermode left Tilbury on January 15 for Uganda, and in the 1921 *Journal* we hope to couple her name with that of another Kewite, Mr. D. Halkerston, among the Wedding Bells.

THE CRICKET CLUB.

IN the early summer a few enthusiasts met together and decided to recommence Cricket. Practice began in earnest, but pre-war members of the club were slow in obtaining release from the army, and it was not until July 18 that the first match took place. Curiously enough, this was with Messrs. Carter & Co. at Raynes Park, the team with whom we played the last pre-war match on August 2, 1914. Kew lost on that day, but as the appended fixture list shows the defeat was avenged on July 18, 1919, the day Peace was signed, the news coming to hand while the members of the two teams and friends were being entertained to tea by Messrs. Carter after the match. On the call of the Chairman all present joined in singing God Save the King. On this occasion the scores were: R.G.K., 113; Carter's, 57. The return fixture was played on Kew Green: Carter's, 16; R.G.K., 166 for 9 wickets. Our opponents challenged us for a third fixture, and at Raynes Park they proved successful, the scores being Carter's, 85; R.G.K., 36. Two other fixtures were played—Watkins & Simpson, 97; R.G.K., 63; and Kew II., 48; R.G.K., 74.

The season commenced with the pre-war balance of £2 and closed with £3 15s. 6d. in hand. Captain, H. L. R. Chapman; Vice-Captain, J. Sparrow; Secretary, F. J. Harcourt.

THE MUTUAL IMPROVEMENT SOCIETY.

SUSPENDED during the winter of 1918-1919, this useful Society is again holding weekly meetings. The Session commenced on November 1, the Chairman, Mr. J. COUTTS, reading a paper on "Roses." Mr. T. W. TAYLOR is the Vice-Chairman, and Mr. M. VARDY, Secretary.

THE BRITISH BOTANY CLUB.

WITH Mr. M. VARDY as Secretary, the four afternoon excursions and evening rambles were resumed during the summer. The specimens collected have been sent in for examination, but until these have been examined the Secretary cannot complete his Report.

OUR members undertake very many diverse duties quite outside the profession of horticulture. The Kew Green Post Office, very well known to most Kew men, has been closed for some time owing to the resignation of Mrs. Torry through ill-health. The closing of this convenient office proved a very sore point with the inhabitants of Kew. To their great relief Mr. A. C. Bartlett has transferred the office to his business premises at 344 Kew Road. He commenced his new work on December 1, and hopes to continue this, with the aid of his family, in addition to his other activities, including Landscape Gardening and Horticultural Agent.

APPOINTMENTS AND RETIREMENTS.

OWING to ill-health MR. J. C. MOORE has retired from the post of Agricultural Superintendent, Grenada.

SINCE his return from Japan to the Arnold Arboretum, MR. E. H. WILSON has been appointed Assistant Director.

MR. W. SHARP has recently disposed of his Seed and Florist business at Montrose, and retired to Brooklands, La Couture, Guernsey.

MR. J. W. CAMPBELL was Chairman of the Malacca Planters' Association during the year 1918, and re-elected for another year in March 1919.

MR. J. G. BAKER, F.R.S., has been given the Honorary degree of D.Sc. by the University of Leeds, on November 20th. He will be 86 on January 13th.

MR. W. C. FISHLOCK, Agricultural Instructor in the Virgin Islands since 1900, is at present home on leave previous to his transfer as a Senior Curator, Gold Coast.

CAPTAIN G. B. MOULD has been granted a Commission in the Indian Army, and has been gazetted to the 53rd Sikhs Regiment. He has resigned his position in the Calcutta Botanic Garden.

MR. J. W. MILES has resigned his appointment as Head Gardener at Welbeck Abbey, and commenced business on his own account as a Seedsman and Florist at Virginia House, London Road, Burgess Hill, Sussex.

AT a recent meeting of the Senate of the University of London, MR. W. HALES was elected to the office of External Examiner in Horticulture for the London University B.Sc. Degree in Horticulture. Mr. Hales has also acted for several years past as one of the Examiners for the Royal Horticultural Society in the examination for the National Diploma of Horticulture.

MR. K. HAGA, who left Kew in 1906, is now Director of Horticulture at the Government Experimental Station, Formosa. He has recently been on a six months' business tour to Manila, Singapore, and the Dutch Indies.

IN addition to occupying the post of Secretary of the British Florists' Federation, MR. C. H. CURTIS is also Managing Editor of *The Gardeners' Chronicle*. In the early spring of 1919, Mr. Curtis secured a seat on the Brentford Urban District Council, and was subsequently appointed Vice-Chairman of that body.

MR. J. HUTCHINSON, Assistant for India in the Herbarium, has been appointed an Assistant, Second Class, on the permanent staff of the Herbarium.

MR. G. H. HECKE, recently State Commissioner of Horticulture, has been appointed Director of Agriculture for California. This position includes the Bureau of Plant Industry and Department of Horticulture.

MISS M. NEST OWEN is engaged at the Botany School, Cambridge, under the Food Investigation Board. Her present work is investigating Moulds that attack meat in cold storage.

MR. W. M. SANDS, who left Kew for the West Indies in June 1899, was stationed at Antigua until 1903. He was then transferred to St. Vincent. Mr. Sands is now home on leave before proceeding to take up the important position of Assistant Economic Botanist, Department of Agriculture, Federated Malay States.

MR. W. H. PAINE has recently been appointed Manager of the Animal Foods Department, of the Metropolitan Meat Industry Board, Homebush Bay, New South Wales. It is a State department engaged in the research and manufacture of animal foods for the relief of cattle in the long dry periods experienced in that country.

MR. W. J. TUTCHER expects to be home on leave during the coming summer from Hong Kong. He has recently returned from three months' holiday in Japan necessitated for health reasons.

At a meeting of the Council of the University of South Africa, held in Pretoria, it was unanimously decided to confer the degree of Doctor of Science, "honoris causa," on MR. THOMAS R. SIM. The degree will be conferred at the next graduation ceremony to be held in Pretoria at the beginning of April next year. This is the first honorary degree in Science to be given by the University of South Africa. The degree is to be conferred on Mr. Sim in recognition of his valuable contributions to botanical science in South Africa. Mr. Sim is indeed to be congratulated on this very high honour.

As indicated below, our members are well represented on the staff of the Board of Agriculture and Fisheries, Headquarters, 72 Victoria Street, S.W.1.

District Inspector,	F. Glover,	Peterboro.
Act. District Inspector,	D. G. McIver,	Preston.

Sub-Inspectors.

W. N. Evans, Bury.	C. H. Oldham, Salisbury.
W. R. Hibbins, Rotherham.	A. W. Proudlock, Cambridge.
J. C. Jarrett, Salop.	F. G. Tutchter, Mansfield.
C. H. Middleton, London.	C. S. Walsh, Cumberland.

The following members of the Guild are attached to the Imperial War Graves Commission:—Botanical Adviser, Captain A. W. Hill.

France.—Horticultural Officers,

F. B. Grinham, R. S. Lynch, A. B. Melles.

Travelling Superintendent Gardeners,

E. M. Biggs. R. Kett.

Italy.—Horticultural Officer, S. W. M. Braggins.

Foreman Gardener, H. J. Brain.

APPOINTMENTS.

Home.

- Boff, C., Journalist, c/o Bees Ltd., Mill Street, Liverpool.
 Bullock, T. G., Horticultural Instructor for Leicestershire.
 Burn, T., H. G., Cuerdon Hall, Bamber Bridge, Preston.
 Collins, W., Superintendent of Parks, St. Albans.
 Halkerston, D., Manager, Guwala Estate, Uganda.
 Harris, C. H., H. G., The Park, Bromley Road, nr. Catford.
 Hartless, A. J., F., King's Walden Bury, Hitchin.
 Holden, A., Catalogue Compiler, Messrs. Wallace, Colchester.
 Hiatt, E. P., H. G., Sutton Court Estate, nr. Bristol.
 Joshua, Miss L., Alpine Propagator, Messrs. Wallace, Colchester.
 Preston, H. G., Act. Superintendent, Botanic Garden, Cambridge.
 Pyman, G. W., Horticultural Instructor for Middlesex.
 Sanders, H., Southern Representative, Messrs. John Peed & Sons, West Norwood.
 Sharp, W. S., Horticultural Instructor, County of Durham.
 Smith, J. T., H. G., Duffryn, Glamorganshire.
 Teasdale, J. J., Northern Representative, Messrs. Cooper, Berkhamsted.
 Timmers, A., British Representative, Midland Nurseries, Naarden, Holland.
 Tindall, H. B. A., Clibran's Landscapes Dept., Altrincham.
 Tuunington, F., Horticultural Adviser for Huntingdon.
 Wallace, J. C., Horticultural Instructor for Lincolnshire.

Overseas.

- Anderson, J. R., Agricultural Department, Zanzibar.
 Birtner, J., Director of Horticulture, Helmdange, Luxembourg.
 Birkinshaw, F., Assistant Inspector, Forest Dept., Kuala Lumpur, F. M. S.
 Butler, F. B., Agric. Inst., Dept. of Agriculture, East Africa Protectorate.
 Cameron, Robert, Estate Supt. to A. T. Crane, Ipswich, Mass.
 Chandler, P., Assistant District Agricultural Officer, Uganda.
 Chapman, H. L. R., Assistant, Dept. of Agriculture, Giza, Cairo.
 Chollet, P., Messrs. Sander & Sons, Bruges, Belgium.
 Coombes, G., Dept. of Agriculture, Zomba, Nyasaland.
 Flippance, F., Assistant Curator, Singapore Botanic Gardens.
 Fyffe, R., Chief Officer, Forestry Department, Uganda.
 Gardner, L. W., Political Officer, Rhodesia.
 Hazel, C., Assistant District Agricultural Officer, Uganda.
 Jackson, P. C. E., c/o H.M. Syndicate, Kampala, Uganda.
 Jackson, T., Agric. Superintendent, St. Vincent, W. I.
 Key, A., Assistant Curator, Botanic Garden, Dominica, W. I.
 Maitland, T. D., Chief Officer, Economic Plant Division, Nairobi.

- Maynard, A. W., Municipal Gardens, Queenstown, S. A.
 Reardon, J. B., Curator Botanic Garden, Cambridge, Mass., U. S. A.
 Sharpe, H. B., Assistant District Commissioner, B. E. A.
 Sharps, J., H. G., Orford, Grafton County, New Hampshire, U. S. A.
 Sparrow, J., Agric. Inst., Dept. of Agriculture, East Africa Protectorate.
 Ussher, C. B., Horticulturist, East Africa Protectorate.
 Walsingham, F. G., Assistant Director of Horticulture, Giza, Cairo.
 Williams, R. O., Agricultural Superintendent, Grenada.
 Yeo, Miss, Superintendent, Sant Antonio Gardens, Tivoli, Italy.

RETIREMENT OF GEORGE BADDERLY.

For many years two men, neither a gardener, were "Hail-fellow, well met!" with practically all Kewites—one was Crisp the Packer, and the other Badderly the Preparer for the Museums. Crisp taught everyone how to pack plants, and bullied everyone who made any mess in the potting or packing shed after one o'clock on Saturday; and Badderly was the friend who tinkered-up a man's pet syringe or water-can in order to prevent its being sent into store and exchanged for a worse. The cricket secretary, if he knew his business, always made a friend of Badderly, for the latter was invaluable for stringing and pegging bats at short notice. Now, at the age of 81, he has retired to enjoy a well-earned pension settled on him by the India Office.

Badderly was the son of a Pay and Colour Sergeant in the Scots Guards, who, on the occasion of the Coronation of Queen Victoria, was stationed at Buckingham Palace; thus Badderly was present at the festivities attending that event, although a baby at the time. Later on he lived at Great Berkhamsted in Hertfordshire, and in 1854 was apprenticed to a local builder to learn the trade of carpentry. At the end of his term of apprenticeship he worked for a number of years in various parts of Essex, Rochford and Shoeburyness, eventually settling in London and obtaining an appointment as Preparer in the India Office Museum, a position he held until the dispersal of the Museum collections on December 31st, 1879. The collections of economic products were sent to Kew, Badderly following them on April 1st, 1880, to act as Preparer for the Museums, his wages being paid by the India Office. From that time until May 31st, 1919, he acted in that capacity, earning the esteem and goodwill of everyone with whom he came in contact. A perfect master of his work, it became the habit to take everything needing repair to Badderly, and if he decided it was beyond hope his decision was accepted as final. On the appointment of his wife as caretaker of the North Gallery in the autumn of 1881, our old friend, under the direction of Miss North, spent some months arranging the pictures on the walls before the building was open to the public in 1882.

Badderly was fond of gaiety, and in his young days was an accomplished dancer, sang a good song, and was an expert cornet player, the latter a relic of his volunteer training. Even until quite recent years

he was a prominent figure at the Annual Social Evenings given by the Gardeners, and rarely left before the end. No one appreciated the Kew Guild dinners more than Badderly, where he met several cronies of his early days at Kew, and thoroughly enjoyed himself. In June 1915 he suffered a great loss by the death of his wife, and since that time he has lived with his son at Teddington. Although in his 82nd year his general health is good. On fine days he works in the garden or does little jobs connected with his trade, and from what one can see he is destined to enjoy his pension for a number of years—at any rate, that is the wish of all his fellow Kewites.

RETIREMENT OF MR. R. IRWIN LYNCH.

MR. LYNCH, owing to failing health and acting on medical advice, at the end of September relinquished his post as Curator of the Botanic Garden, Cambridge, which he held with such marked ability for 40 years.

Mr. Lynch first became prominent in the gardening world while at Kew, which he entered in 1867. He remained and distinguished himself in many ways, until 1879, when, on the recommendation of the late Sir Joseph Hooker, he came to Cambridge, and no man could have been better fitted for the post. Mr. Lynch proved himself an accomplished gardener and a distinguished botanist. To show their appreciation of his work the University in 1906 made him the recipient of the Honorary Degree of M.A., "in recognition of services rendered to Botanical Science in the University."

A number of prominent people, mostly Cambridge friends of Mr. Lynch, contributed to a Testimonial and a Supplementary Pension Fund. The Testimonial took the form of a hand-made silver inkstand, suitably engraved:—"To R. Irwin Lynch, Hon. M.A., F.L.S., V.M.H., Curator of Cambridge Botanic Garden, 1879-1919, given by his friends on his retirement as a mark of personal esteem and admiration of his devoted work." An illuminated address was also presented by the Staff.

Mr. Lynch is now residing at Torquay, where the genial climate should enable him to continue that branch of horticulture with which he was so successful at Cambridge, that of cultivating tender plants outside, and which has helped to make the Garden famous. Members of the Guild will join his Cambridge friends in best wishes for a happy retirement.

F. G. P.

THE beautiful Maidenhair Tree, *Ginkgo biloba*, near No. 4 greenhouse, is well known to most of our members. Being a male tree it has not in the past borne fruits, but in 1911 a few twigs were obtained from one of the famous female trees at Montpellier. Several of these were successfully grafted on the Kew tree, and last autumn a cluster of four fruits ripened on one of the twigs.

KEW NOTES.

THE number of visitors to the Gardens during 1919 was 1,019,479, an increase of 378,750 over 1918. The greatest monthly attendance was during May, the figures being 225,218; the highest Sunday attendance 25,770 on May 18, and the greatest single-day record 47,673 on Whit Monday, June 9. The lowest monthly record was January with 6,998, the lowest Sunday numbers 153 on April 27, and the lowest attendance for one day 3 on December 1. Visitors on Sundays totalled 378,234 and on week-days 641,245, bath chairs numbered 765, perambulators 4152, cameras 3348, exclusive of season tickets.

KEW is gradually resuming its pre-war well-kept appearance. In the spring the Flower Garden, or to be quite correct, the 1918 Onion beds were levelled down and sown with grass-seeds. Recently a scheme of beds, rather more simple than formerly occupied the site, has been laid out and planted with Violas, Tulips, &c. It is intended to plant Potatoes for one more season on the largest of the three lawns in front of the Palace. The Sundial and Seven Sisters Lawns will be levelled and sown with grass-seeds in the spring.

SOME years ago the wall enclosing one side of the Alpine Yard was increased in height. The lower portion was not built to meet this addition, and in a few years showed signs of falling. Wooden struts were used to prevent its complete collapse, as rebuilding was not possible during the war. The work of building a new wall is now nearing completion, advantage being taken of the opportunity to enlarge the Alpine Yard by setting the wall a few yards farther back.

THE introduction of many new Berberis by Mr. H. A. Wilson and other plant-collectors from China has more than doubled the number of species in cultivation. To accommodate these in the Berberis Dell it was necessary to entirely overhaul the collection. By removing an Atlas Cedar from the mound in the centre of the Dell much more space is available. A grass walk winding over the centre permits much easier access for the examination of the plants.

THE use of the Motor Lawn Mowers had to be discontinued owing to the petrol regulations for the last two years of the War. Their good work again during the summer of 1919 is very evident in the appearance of the lawns and avenues. The 42-inch Mower was purchased from Ransome's about 18 years ago. Though obviously the annual running repairs must be considerable, it is very satisfactory for a machine to last so long remembering that it is running practically continuously during working hours from March to October. The 24-inch Motor Lawn Mower purchased at the beginning of the War is doing excellent work among the flower beds and in the herbaceous ground.

A GREAT improvement has recently been made in the *Cistus* and *Helianthemum* collections. To cultivate them successfully on a sloping bank is not easy. Surplus stone from the rock garden has been used to terrace the slope and form bays in which to grow the plants.

THE LECTURES, 1919.

Economic Botany. Lecturer, Mr. J. M. Hillier.

Highest number of marks: F. W. Hall, 250; F. M. Rogers, 250; P. Chandler, 246. Maximum 250. 25 Lectures.

The following Courses of Lectures had not been completed at the time of going to press:—

Plant Pathology. Lecturer, Mr. A. D. Cotton, F.L.S.

These Lectures are now given in the Jodrell Laboratory, and microscopes, which are now provided, add considerably to the value of this Course. 25 Lectures.

General Botany. Lecturer, Mr. T. A. Sprague, B.Sc., F.L.S. 25 Lectures.

Physics and Chemistry. Lecturer, Mr. Paul Haas, D.Sc.

During the summer, 20 Demonstrations were given in the gardens among living plants.

Demonstrators, Messrs. W. Dallimore, J. Hutchinson, F.L.S., S. A. Skan, and C. H. Wright, A.L.S.

THE continued demand for 'Trees and Shrubs, Hardy in the British Isles' by Mr. W. J. BEAN, has necessitated a reprint of the second edition. In all respects the reprint is similar to the previous issue, but owing to the increased cost of production the price of the two volumes has been raised to 48s.

METEOROLOGICAL NOTES.

	Rainfall in inches.	Temperature.	
		Maximum.	Minimum.
1919.			
January	3.52	51° F.	23° F.
February	2.35	51	18
March	3.07	57	26
April	2.61	69	24
May	0.17	80	40
June	1.43	81	37
July	2.33	79	42
August	2.13	86	45
September	1.32	86	33
October	0.57	85	28
November	1.38	56	22
December	3.12	53	24
Total Rainfall for 1919...	24.50	—	—

TWO YEARS' SOJOURN IN INDIA.

ON July 17, 1916, I joined His Majesty's Forces, and after a few weeks at the Citadel and Fort Staddon, Plymouth, was despatched, with others, to India, on H.M. troopship 'Demosthenes.' We were permitted to land at Gibraltar and Malta, but had no opportunity of visiting gardens. During the voyage I found several gardeners on board, including an Old Kewite, Mr. J. Thompson; but I lost him on arrival at Bombay, and did not see him again. I heard from him in September, when he was still in India.

Before I left England our worthy Secretary sent me a list of names and addresses of past Kewites, which proved of great value in locating Kew men. For three weeks I was stationed at Colaba, Bombay, then removed to Allahabad in the United Provinces, which was my headquarters throughout my stay in the East. A reference to the list quoted above told me that Mr. Head was Superintendent of Parks and Gardens, Allahabad, and it was not many weeks before I got in communication with him, and received a cordial invitation to dinner on the following evening. This, by the way, was the forerunner of many pleasant evenings, and I put it on record that I received the greatest kindness and hospitality from all the Kew men I met, especially Mr. Head. They will never realise what it meant to a soldier out in India, where nothing exciting occurred so far as the army was concerned. I, for one, am truly grateful. Mr. Head, among other places, has charge of Alfred Park, Government House Gardens, and Khusru Bagh. Alfred Park covers a large area, contains a number of fine trees, open spaces for tennis and hockey, and a beautiful memorial to the late Queen Victoria. Around this fine figure are numerous beds, which are filled with annuals and other plants such as we see in England. In addition to Mr. Head's numerous activities, he is Hon. Secretary to the local Horticultural Society, which holds two shows annually. One is devoted chiefly to Chrysanthemums, and the other to annuals, Roses, vegetables, and fruits.

These shows were a revelation to me. The Chrysanthemums were excellent; but here, again, the Kewite is the pioneer, for Mr. Head secures all the best kinds from this country, which are eventually distributed in the district and neighbouring provinces. He is also a raiser of new varieties, and possesses a charming series of the type with single flowers. Needless to say his exhibits help the shows considerably. Roses, again, are a special feature with him, and never shall I forget the glorious stand of the yellow *Maréchal Neil*. The blooms were superb.

It was at one of these flower shows that I met Mr. Davies, of Lucknow, and although I was in that district on three occasions, I was unable to visit the gardens under his care.

In Khusru Bagh is a fine collection of plants, especially Mangoes, which are probably among the finest in India. Roses are grown on a large scale, also Sweet Peas. It was in these gardens that I saw a wall

some 50 yards long and 12 feet high covered with *Bignonia venusta* in full bloom, the mass of orange-yellow flowers presenting a wonderful feast of colour. A few trees struck me as very showy and attractive: they embrace *Poinciana regia*, *Cassia fistula*, the Indian Laburnum, and the shrubby *Lagerstroemia indica*. Cannas and *Poinsettia pulcherrima* thrive and flower exceedingly well in the Allahabad district.

On the banks of the river Ganges near the fort stand two remarkable specimens of *Adansonia digitata*, concerning which an illustrated note was published in the *Gardeners' Chronicle* of July 21, 1917.

During the summer of 1917 a visit was paid to Darjeeling, and the Himalayas are truly remarkable for their splendour and magnificence. Here I met Mr. Cave, a keen plantsman, and through him I was able to visit tea plantations and other gardens. The Botanic Gardens, Darjeeling, are well kept, and contain a number of remarkable plants. Mr. Cave has also a useful library, and a large collection of dried specimens. He makes occasional plant-collecting excursions into Nepal, Sikkim, and other places. On the hills above Darjeeling I saw masses of *Pleione* in flower, the pretty blue *Parochetus communis*, *Osbeckia stellata*, *Bœnninghausenia albiflora*, and a host of other striking plants.

From Darjeeling I obtained a week's furlough, and this was spent with Mr. Russell, Superintendent of the Cinchona plantations, Mungpoo. From Sonada station on the Darjeeling-Himalayan railway to Mungpoo is 16 or 18 miles, through the forest and jungle. A horse and a native guide, however, were thoughtfully provided by Mr. Russell. The Cinchona plantations cover hundreds of acres. The bark is stripped from the trees, dried, and the quinine is manufactured not far from Mr. Russell's bungalow. Around the dwelling a nice collection of orchids is grown, and when riding round the plantations I saw a number of *Phaius Wallichii*, but the gem of the whole lot was *Arundina bambuseifolia*, five and six feet high, with a wealth of blossoms. A return was eventually made to the plains, and the pleasant evenings resumed with Mr. Head.

In 1918 I was sent up to Ranikhet, a hill station, but it cannot be compared to Darjeeling from the scenic point of view. However, it had its compensations, for I was enabled to see another Kewite, and to study another phase of gardening in India. Through Mr. Head I soon got in touch with a genial Cornishman, Mr. Norman Gill, who has charge of the Government Gardens, Naini Tal, the experimental station, Douglas Dale, and the Kumaun gardens and orchards, Chaubattia. It was the last-named place that I visited, and here I found Apples and similar fruits grown on a large scale.

It was through the energy of Mr. Gill that *Atropa belladonna* has been successfully grown and put on a commercial basis in India. He has built a drying-house some 100 feet in length, and is sending quantities of dried leaves to Lahore, where they give every satisfaction. Experiments are being conducted with other drug plants.

Towards the end of 1918 I intended to call on Kewites at Agra and Delhi, but a hurried dispatch to France prevented my seeing any more of the glorious East. I cannot, however, close this somewhat disjointed note without tendering my heartiest thanks to those Kewites mentioned, and to their wives, for their kindness: but for their exertions I should never have seen so much of India. I realise more fully than ever what Kew men do in the building of the British Empire.

November 26, 1919.

T. W. BRISCOE,

THE GARDENER AND HIS FIELD.

Do not think that I am not a gardener, for I am. I was born in it, apprenticed to it, it has been my lifelong vocation, and I love gardening. And do not think that because I am now buried in a cemetery my interest in gardening has ceased or lessened, far from it. I am as vitally concerned in flowers, fruits, and vegetables, in landscape work and decorative gardening to-day as I ever was, but necessarily in a more limited field than formerly. At the same time my mind and soul are with you in your calling.

Among the many occupations of men, gardening has an interest and charm exceeded by none: there is a spirit of fraternal fellowship among practical gardeners never approached in any other calling. There is a growing and permanent fondness and fascination about it no other work approaches. This being so, we naturally expect and find among gardeners a superior, congenial, and kindly-hearted people. Adam, the world's first gardener, was put "into the Garden of Eden to dress it and to keep it," and ever since this has been the work allotted to us. Pretentious gardens, however, are too few to provide lucrative enough employment for all of us, hence many have branched into other lines of horticulture, but all akin, as landscape, seed, experiment, nursery, truck, florist, and forestry; and these again are subdivided into specialities, according to the fitness, taste, sagacity, and opportunity of the man himself, and in most cases very successfully. The ambitious gardener laudably aims at the education and refinement of his family, and finding that his salary as gardener is insufficient to satisfy him in this respect, he is often forced into more remunerative branches. But no matter where we are or how situated, let us work, hands and brains, with all our might and look ahead for professional betterment. As a man works and acquits himself so rests his standing in the community where he resides and among his fellow-craftsmen throughout the land.

Gardeners should visit each other professionally and socially; it will make them happier with themselves and more contented with their surroundings. No matter how good a gardener a man may be, if he never goes away from home or out among his fellow-craftsmen, he is apt to get stiff and self-satisfied. There is nothing that will display

to ourselves our professional shortcomings so vividly as mingling with other gardeners, home or distant, and seeing and knowing what they are doing. We then realize that we do not know everything; our neighbours know something, too.

Gardeners' clubs and kindred associations have done, and are doing, much to brighten our lives; they are happy gatherings, where we meet our brothers in trade, extend our acquaintanceship, form friendships, see and know what each other is doing, and "enter into that noble contention, or rather emulation, of who best can work and best agree." Every gardener should join the home club and attend its meetings, give and ask for information, and show in flowers, fruit, and vegetables what he is growing at home and tell how he does it.

So far as we consistently can, we should also attend the state or national convention or association meeting of gardeners. Of course this costs money, but our employers should send us there to see and hear all we can at these meetings, and glean from observation at the several gardens visited at the city where the convention is held or at stop-over places to or from that destination. He is a blind man, indeed, who cannot absorb enough useful information to profitably apply to his own charge at home to more than compensate for what the trip may cost. Besides, the gardener becomes more and more imbued with a progressive spirit and determined to do better than he ever did before, and resolves that in the future his place shall be maintained in as fine a condition as any place he had visited in his travels, so when his distant friends visit him they shall speak in praise rather than criticism, and he shall be pleased to have them rather than afraid to meet them. He is filled with a spirit of pride and rivalry. And surely this is to his employer's interest.

A gardener is naturally a reader. Our vocation is so varied in detail it behoves every progressive, ambitious man to keep posted in the subject of his work. We have many good books on gardening—general, special, and reference—and it is a pleasure to delve into them; we also have excellent periodical literature on garden, florist, and other horticultural matters. We peruse these papers for opportune subjects and to keep posted as regards news, timely practical matter, varieties of plants and flowers, etc., in fact, we eagerly await their coming and at once plunge into their pages. This is one of the reasons why gardeners are so well-posted, so versatile, and critical. Now, if we profit so much from the information contained in these papers, are we not forbidden to "light a candle and put it under a bushel?" If so, then jot down any little thought that may come to you which would be of benefit to any other gardener and send it to the editor. Do not growl at the shortcomings of the paper, get out your own pencil and tell what you yourself know, and be happy in helping another, for "it is more blessed to give than to receive," even as to information about plants or flowers.

When it comes to professional gardeners who have launched into commercial life, making a success of it, their names are many. We have John N. May, the Rose grower, and Charles H. Totty, the new plant specialist of New Jersey; William Nicholson, the Carnation grower, and Thomas Roland, of Massachusetts, whose splendid Acacias and Heather are a special feature of our metropolitan flower shows; W. A. Manda, of New Jersey; the Farquhar brothers, of Massachusetts; our own Sam Clements, of Pennsylvania; Adam Graham, of Ohio; Walter W. Coles, of Indiana; Fred L. Atkins and William H. Duckham, New Jersey, and many more. Among those who have taken to practical botanical work are James Gurney, of St. Louis; Peter Bissett, of Washington; Robert Cameron, of Harvard; the illustrious E. H. Wilson, of Chinese renown, now of the Arnold Arboretum; G. H. Pring, of the Missouri Botanical Gardens, and M. Free, of the Brooklyn Botanic Garden. And although gone, but never to be forgotten, I cannot omit my dear old friend and crony, the late William R. Smith, of Washington, than whom, among those who have passed away, next to the late Peter Henderson, he was the most widely known and beloved gardener in America.

Michael Barker, of Chicago, graces the editorial chair, and in this line surely no man in the country shone more brightly than the late J. Harrison Dick, of New York.

Prominent park superintendents, who in earlier life were trained practical gardeners, are not numerous, but standing head and shoulders over most of them rank Theodore Wirth, of Minneapolis, and John Dunbar, of Rochester, both trained gardeners.

Among the great cemeteries of the country several of the superintendents are trained practical gardeners, to wit: John Reid, of Detroit; Robert Campbell, of Louisville; James Currie, of Milwaukee, and William Salway, of Spring Grove, Cincinnati. The superintendents of four of the largest cemeteries in Pittsburgh are apprenticed-trained practical gardeners! They are Hopton, of West View; Youden, of Uniondale; Allen, of Homewood, and myself, of Allegheny, and each man of us has a mighty good job.

The above will show that there is a wide field for gardeners in this country, both in plain gardening and its many ramifications. What we want is brains, executive force, strict application to work and business, economy, and steadiness. And I would like to add both for utility and as an accomplishment, a wide knowledge of plants, hardy and tender, wild and cultivated.

[A paper by William Falconer, Superintendent of Allegheny Cemetery, Pittsburgh, Pa., distributed by the Committee on Essays and Horticultural Instruction of the National Association of Gardeners of America for discussion at meetings of local horticultural societies.—Ep.]

A VISIT TO THE NEW YORK BOTANIC GARDENS.

THE New York Botanic Gardens are situated at the northern extremity of New York City. They are distant about 14 miles from lower New York, and are easily reached by elevated railway from the City Hall and South Ferry Stations at the southern end of the city.

The gardens cover an area of about 400 acres and abound in interesting features. The whole area is intersected with broad drives, and the park area is open night and day—in fact, there are no gates to be closed.

On entering the grounds from the railway station, the fine range of glasshouses immediately attracts the attention of visitors. In the main range are seventeen houses, the central one having a dome some 90 feet high. This central dome is filled with large Palms, Aroids, Bamboos, and other tropical plants. The other houses in the range are devoted to various tropical and sub-tropical plants. Aquatic plants have a house to themselves at one end.

Outside the houses are tanks filled with hardy and half-hardy aquatics. Near by long beds contain hardy herbaceous plants. Many interesting plants were flowering in these beds at the time of my visit.

Some distance away from the main range is another range of glasshouses. Prominent among these is a large, newly-finished house exhibiting several novel features in greenhouse construction. The central part of this house is designed as a greenhouse lecture hall, where lectures on horticultural and kindred subjects may be given with the living subjects before the audience. It is also proposed to have displays of horticultural produce in it from time to time. In common with the other glasshouses in the garden, this house has a large, well-lighted, and heated cellar.

The Museum Building is situated near the main range of glasshouses, and is a handsome structure. In the basement is a well-equipped lecture hall, as well as space for displays of horticultural and other produce. The first floor is devoted to a fine collection of specimens of economic products: waxes, oleo-resins, fibres, gum resins, rubber, drugs, spices, etc. On the next floor are exhibited specimens and illustrations of various economic plants. The top floor is devoted to herbarium specimens, chiefly illustrative of the North American Flora.

In the grounds, in addition to the herbaceous borders already noted, are collections of the trees and shrubs of North America and other temperate countries. A most interesting feature is a block of primæval forest.

At the time of my visit, a magnificent collection of Dahlias, containing over 300 varieties, was coming into bloom. The collection of Cannas was, perhaps, just past its best. The Canna appears to flower more freely in the New York area than in England.

No one interested in botany, horticulture, or agriculture visiting

New York should miss the opportunity of visiting these most interesting gardens. The able and courteous Director-in-Chief, Dr. N. L. Britton, is always pleased to see fellow-workers.

W. FISHLOCK.

CALABAR AGRICULTURAL STATION.

It may interest the readers of the *Journal* to know what we are doing here to advance Nigeria in the agricultural world. Recently the work has been rather curtailed owing to the absence of a number of the staff in the army and in the Cameroons Cocoa Plantations. The work in the Calabar Agricultural Station consists of tapping alternate trees in the Para Rubber Plantation, tests in growing cocoa, breeding tests with the four varieties of Oil Palm (*Elaeis guineensis*), planting experiments with Cola (*Cola acuminata*), planting and cover crop experiments with Coconuts, and experiments with West Indian varieties of Sugar-cane. Rice and Maize have also been grown in the last season.

The tapping of the Para rubber trees is the most important work at present. These trees were planted in the years between 1906 and 1910, at 18 feet apart; this has proved much too close, and now all the alternate trees are being tapped with a view to cutting them out when the latest yield has ceased. The system of tapping used is the single sided "herring bone" with four cuts one foot apart. The trees are tapped on alternate days, an X is marked on the trees to be tapped on the odd days of the month, and an O for those to be tapped on the even days. The latex is collected and put in enamel soup-plates which are placed in the smoke-chamber to accelerate coagulation. No coagulant is used, as it is desired to make all the processes as simple as possible in order not to confuse the natives. The coagulation takes from 18 to 24 hours; when completed the biscuits are hand-rolled, washed, and smoked over wood fires. The smoked rubber is sold locally, and the price is usually 1s. 8d. per lb. for biscuit and 1s. per lb. for scrap. The labour cost of tapping, collecting, and smoking has varied from 10¼d. per lb. for the original tapping to 5¼d. per lb. for the last tapping at the end of 1918.

Cocoa has not been a success in the position originally chosen for it, and it has also had such a variety of treatment.

It has been proved that the different Oil Palms rarely breed true to their mother type. Another thing that these experiments have proved is, that they fruit much earlier than the natives would have us believe. The natives say seven to nine years elapse before they fruit; the trees at Calabar fruited in four years from the planting-out date, and at six years are producing good size bunches with well developed fruits.

A section was planted with Cola nuts in 1914, but owing to the lack of supervision, due to the shortage of officers, they were not well treated at first, but are now doing well.

Coconuts were planted in 1914 and gave a lot of trouble to establish, but are now thriving, and a very useful cover of the Bengal Bean is doing well. This Bean does well when sown towards the end of the rains; if sown at the beginning, the moisture is too much for it—rotting the seeds.

A small experiment has been started with some varieties of Sugarcane obtained from Barbados by Mr. A. H. Kirby, the Assistant Director of Agriculture. These are much superior to the native varieties, and there are possibilities of a great future for Nigeria if only the work is given encouragement.

The Nursery has been somewhat neglected in the past, but in 1918 a slight increase in labour allocation improvements was made, and the Nursery is now laid out on the latest and most approved lines, except that a more permanent form of shade is required to take the place of the very unsatisfactory temporary arrangement of fork sticks with bamboo runners and palm leaves. Economic plants—such as Cocoa, Coconuts, Para rubber, and Cola—receive most attention, but other subjects are grown in small quantities. These include Malay Apples, Petanga Cherries, Turmeric, Mangosteen, Sisal Hemp (fibre made from Sisal plants grown in Calabar was valued at £9 9s. per ton a few months ago), *Bougainvillea glabra*, *B. Frangipani*, and numerous other decorative as well as fruiting subjects.

The Economic Gardens are now in a greatly improved condition. Nearly all the subjects planted in the Nursery are obtained from here. Amongst some of the most interesting are the Brazil nuts, the Butternut, and Mangosteen. Considering the time, enthusiasm, and money that have been spent on these gardens one is shocked to think that they are practically being allowed to run wild.

The educative work in Calabar consists of the supervision of school gardens, keeping in touch with all the local native farmers and visiting their farms. The Agricultural Society relies on the Agricultural Officer for lectures and instruction. The West Indian schoolmasters at the Mission Schools are very useful men to the Agricultural Department.

C. WARREN.

LETTERS FROM OLD KEWITES.

MR. F. ROEKENS writes from Brussels Botanic Garden:—War times have passed away, and so many things have happened the last five years that it is difficult to recall them all. Here in the Botanic Garden it has not been very easy to keep our collections of living plants. Still we have managed to rescue a good many of them, but the loss in stove plants is heavy. The fuel question has been the worst, you must wonder that a coal-producing country had a want of coal, but the Boches were there, and took not only the best of it but the worst. We have also been growing vegetables in the open for our workmen. It was rather dangerous to grow too much because, again, the Germans

were there. They were always about when there was something to get hold of. We have seen all our copper implements taken away. (Germans called that requisition, we had another name for it.)

In the early days of 1915 a committee was started at Schaerbeek, the place where I am living, for the purpose of encouraging people to cultivate the waste grounds, and called "Comité pour la culture des terrains incultivés"; this was afterwards called "Ligue nationale du Coin de Terre." Each family could have gratuitously a piece of ground of about 12 rods. Something like 5000 plots were so secured, in all about 250 acres. During these last five years, I have, as a member of the Committee, given technical directions and lectures on vegetable culture; the audience often numbered from 800 to 1000—a large attendance for horticultural subjects. For the last 16 years I have been a horticultural lecturer, but I had never so many attendants on the ordinary lectures for gardeners or amateurs. This will give you an idea how acute was the food question here. At present I am giving horticultural instruction to the Canadian soldiers of the 102nd Battalion now here, under the care of the Educational Office.

I wonder that I did not see more Kewites; the only one I met here, a few weeks ago, was Mr. W. E. Marriott of South Africa.

Well, some of the Kew men have seen what "Deutsche Kultur" is. Kewites who come over in the near future to the Continent will see a quantity of souvenirs from that "Kultur."

About twenty years ago, when at Kew, I heard very often from one or other Englishman, words like "— German." We know now the just valour (?) of German people taken generally, and German soldiers and officials in particular. I do not think it would be good for them to come over here to try to make us believe that they are Swiss or something else. Mr. Gentil handed me the last five numbers of the *Journal*, which I was glad to receive, and read, after having been cut off from the world for nearly five years.

Mr. F. S. SILLITOE writes from Khartoum, under date September 30, 1919:—

A few days ago I thought I would write to ask for another copy of the 1919 *Journal* as mine had not turned up, but yesterday the welcome "Green cover" arrived, and as it is some time since you heard from me herewith a few lines.

I must commence with reminiscences of bygone days with old pals who, alas! will not be met again when Kew is revisited after an absence of six years, as all being well I hope to see it in 1920. I have not been home since 1914 when, curiously enough, my leave expired on August 5, and I left Tilbury on that fateful morning when everyone seemed dazed and looked at each other, afraid to speak. At Southampton the boat was ordered to take a different route so I returned to London for a week, when all Sudan Government Officials were collected and embarked on the P. & O. 'Nankin.' An uneventful voyage to Port

Said, then on to Khartoum. This was the last time I saw the briny ocean.

A glorious day in June, in company with one of the best of "Pals," C. F. Ball, one of the first Kewites to be mourned in 1915, was spent together at Veitch's Coombe Wood Nursery, which also has passed away I suppose. I have often thought that our guide wondered who Ball was, as his knowledge of Wilson's introductions was splendid, and in his quiet way, he just said, "I think that is so and so," and our guide seemed convinced. Then in 1914 I met the cheery Anderson, whose heroic death was a blow to all who knew him. So one can go on through the list and find friends that helped to make leave at Kew enjoyable, gone.

I do not know if any one of the ideas suggested have materialized for a memorial being made to Kewites who have fallen during the war, but if so I shall be most willing to help. The suggestion of Mr. Hales' at the Annual Meeting for a scholarship is good, and with the large number of Kewites, many of them now in good positions, cannot the sum of £1000 be raised?

In March last I had the opportunity of going south with the Director of Forests on a 3 months' trip, and thus two links of the "Kewite chain from Cape to Cairo" were joined for 2 months, and a most enjoyable time we had. I refer to Cartwright at Kagulu. This part of the Sudan was formerly the Lado Enclave and was handed over to us on the death of the late King of the Belgians. It is some 1200 miles from Khartoum, in a fine country. One goes by river to Rejaf and then by motor car to Jei and Kagulu and on to Aba in the Congo. The plantation of Ceara is looking well and in a few years should be a great success. During this trek we made a collection for the Kew Herbarium of nearly 500 specimens that should have reached there by now, and I trust a few new species will be found amongst them.

When there, the desire to call on the next "links" was great, again hundreds of miles south in Uganda. They happen to be Brown, who was with me in the Propagating Pits in 1903, and Dümmer, whom I met in 1914.

The last time the Uganda and Sudan links were joined was in December 1904, when who should walk in but Dawe after his trek from Entebbe. He now writes from Bogota. How some people do get about this world!

In 1917 I joined up with the Cairo Kewites, Brown, Walsingham, and Crouch, as when Sir R. Wingate left here for Egypt he kindly took me, and I had the great treat of travelling all the way from Halfa to Cairo by steamer. What a wonderful country Egypt is and still more the River Nile, when one knows that, with the exception of the Atbara, it receives no other tributary from the time it passes Khartoum till it enters the Mediterranean, 1900 miles north through the hottest deserts.

During the last few years I have been away on several occasions for locust destruction in the Blue Nile Province and sparrow destruction in Dongola. Most interesting work, but at the same time trying if one is not successful. The Gezira Cotton-growing scheme is situated on the Blue Nile and promises to be a great success. Just now the whole country is planted with Dhurra, and as the rains have been good it is a picture, yet in the spring there is no more desolate place imaginable, mile after mile of barren, hard, cracked, cotton soil. Bishop Gwynne, who has just returned after 5 years with the Forces as Assistant Chaplain-General, tells me he preached at Kew quite recently. I wonder if any Kewites heard him. By 1920 I hope Onion beds will have been replaced by flower beds and Potato patches by lawns, as of yore. Although not spring time one feels like adding a few lines to that excellent verse "Hortus Kewensis," which makes such a fitting finish to the volume of 1919.

I N M E M O R I A M.

WILLIAM GOLDRING.

The death of Mr. Goldring on February 26, 1919, was heard of with great regret by the many Kewites, both past and present, with whom he was acquainted, and landscape gardening lost thereby one of its most capable exponents in this or any other country. Although he had been in failing health for several years before he died, he did not entirely cease the practice of his profession till within a few months of the end. He entered Kew in 1875 and left four years later. Among well-known contemporaries of his were Messrs. W. Fox, Chas. Maron, G. H. Richards, and T. R. Sim. Mr. Goldring was President of the Guild during 1914, and for some years served on the Committee. He was a widely-travelled man, and for several years in succession visited India during the winter months, and on one occasion prolonged his journey to Singapore and Japan, returning home by way of the Pacific and the United States. He was a hard and conscientious worker, and his success was such that many times he had to refuse clients. Possibly his arduous labours shortened his life, for at the time of his death he had not reached his 65th birthday. Fuller particulars of his career may be found in the *Journal* for 1913, of which his portrait forms the frontispiece. Mr. Goldring left a widow and two daughters, who now reside in the neighbourhood of Sutton. The one great grief of his life was the loss of his only son, who died in early boyhood. W. J. B.

WALTER THOMSON.

It is with sincere regret that we chronicle the death of Mr. Thomson at the comparatively early age of 49 years. For the last seventeen years he was Gardener at Alnwick Castle, the northern seat of the

Dukes of Northumberland. Mr. Thomson was a gardener of exceptional attainments with a wide and varied knowledge of horticulture. He was studious and observant, not so much a student of books as of nature herself.

Mr. Thomson served his apprenticeship in the gardens at Broomhouse, Duns. After a short time in the gardens at Marchmont House, Duns, he came south to fill a situation at Kingston Hill, from whence he entered Kew in 1892. He left Kew in March, 1894, to take up the post of Head Gardener to Lord Roberts. Before taking charge of Alnwick Castle Gardens Mr. Thomson was for several years Gardener and Overseer to General Pitt-Rivers at Rushmore, Salisbury.

To those who enjoyed our late friend's closer intimacy and friendship he disclosed his deep rich nature, constancy and a delightful fund of humour. To his widow, three sons, and one daughter the deepest sympathy of our members is extended.

ARTHUR JOHN LITTLE.

Rarely is it our sad duty to record the wedding and death of a member in the same issue of the *Journal*. Mr. Little was at Kew in the early months of the War and joined the Herts Battalion of the Royal Naval Division in November 1914. He saw a good deal of active service in Gallipoli and elsewhere. Mr. Little returned to Kew when demobilised in February 1919. Three months later he left to take up the position of Foreman at Treloyhan House, St. Ives, Cornwall, the garden in which he worked previous to entering Kew. To those working with Mr. Little it was soon apparent that the War had undermined his constitution. At times he was bright and cheerful, but more often he was depressed. On October 4 his body was found in a shrubbery at Treloyhan House with a bottle which had contained poison close by. A doctor who was called attributed death to poisoning which paralysed a weak heart. A Kewite friend informing us of the sad occurrence writes: "Mr. Little has fallen a victim of the Great War as truly as if his bones lay upon the battlefields of France or Flanders." To his young widow members of the Guild will extend their deep sympathy.

MRS. HANNAH WALL OLIVER.

We regret to record the death, in her 85th year, of Mrs. Hannah Wall Oliver, widow of Prof. Daniel Oliver, F.R.S., Keeper of the Kew Herbarium from 1864 to 1890. Mrs. Oliver did much philanthropic work in the district, and was for many years Hon. Secretary of the Society for Rescue and Preventive Work in Richmond. The interment took place at the Friends' Burial Ground, Isleworth, on Friday, December 5, 1919.

ALBERT WRIGHT.

Mr. Wright left Kew in April 1914, to take up the position of Outdoor Foreman at the Birmingham Botanic Garden. He joined the 5th Warwickshire Regiment in February 1916, and in the following May went to France. Towards the end of the same year he was invalided home with fever. On recovering, Mr. Wright returned to France. While out wiring at night in front of the trenches he was wounded in the leg and was sent to a Glasgow hospital in May 1918, transferred for treatment to Irvine, and later to Mayhull near Liverpool. When about to be discharged he contracted influenza followed by pneumonia and died in hospital on February 25, 1919, and was buried at Lodge Hill Cemetery, Birmingham. Mr. Wright was 29 years of age.

WILLIAM LORIMER JOYCE.

When war broke out Mr. Joyce was in Canada. He returned to his home at Llanfrynach, Brecon, and enlisted in the 4th Battalion of the South Wales Border Regiment. His regiment was one of those engaged in very severe fighting in Mesopotamia, where he was taken prisoner by the Turks on April 30, 1917. Most of us have read in the daily newspapers of the terrible privations and rough treatment of British Prisoners of War in the hands of the Turks. Only recently have we learned from his mother that a fellow Kewite was among them. Mr. Joyce died at Seidgehan, Turkey, on October 2, 1917.

William L. Joyce was born at Maesderwen Gardens, near Brecon, on May 22, 1885. He entered Kew in March, 1908, from Llysdinan Gardens, Newbridge-on-Wye. On the completion of the two years' term Mr. Joyce went to Ontario, Canada, in the spring of 1910. Such is the brief record of another brave soldier-Kewite to whose sorrowing mother we extend our sympathy.

ROBERT FLEMING.

It is only recently that news has reached us of the death of Mr. Fleming in November 1917, followed by that of his wife three months later in February 1918. Both are buried in Lighthill Cemetery, Glasgow.

Mr. Fleming left Kew in March 1858. He retired from the position of Head Gardener at Garscube House, Maryhill, Dumbartonshire, the residence of Sir George and Lady Campbell, in November 1913 after some 38 years' service.

ROBERT INGLIS.

News of the death of this Old Kewite was obtained through the Post Office returning one of the War Memorial circulars addressed to 2 Harrogate Cottages, Franklyn Road, Haywards Heath. Mr. Inglis left Kew in January 1869.

CHARLES WILKINSON.

We regret to learn from Mrs. Wilkinson that this Old Kewite died on April 26, 1917, from pneumonia, following influenza, at Boreham Wood, in his 52nd year. Mr. Wilkinson left Kew in November 1889, and was for some time Foreman at Bradwell Grove, Burford, Oxon. In 1897 he took a farm at Filkins, Oxon, where our late friend resided until 1916. Taking an interest in local affairs, Mr. Wilkinson was a member of the local Parish Council and Assistant Overseer for several years. A widow and five children survive to mourn his death.

K. IWAMOTO.

Mr. W. H. Etterley informs us that this Japanese Kewite died of pneumonia during 1918 in Shanghai. At the time of his death he was on the staff of the Yokohama Nursery Co. in that city, and was previously Head Gardener on the estate of Mr. McBain at the same place. Mr. K. Iwamoto left Kew in January 1914.

KEW STAFF (*December 31, 1919*).

(*The names of Life-members are preceded by an asterisk.*) *Entered Kew.*

Director	*Lt.-Col. Sir David Prain, I.M.S., C.M.G., C.I.E., F.R.S., F.L.S., V.M.H., M.B., etc.	1905
Assistant Director	*Capt. Arthur W. Hill, M.A., Sc.D., F.L.S.	1907
Assistant, 1st Class	John Aikman	1888†
Keeper of Herbarium and Library	Otto Stapf, Ph.D., F.R.S., F.L.S.	1891
Assistant, 1st Class	Charles Henry Wright, A.L.S.	1884
" "	Robert Allen Rolfe, A.L.S.	1879†
" "	*Sidney Alfred Skan	1892†
Assistant, 2nd Class	T. A. Sprague, B.Sc., F.L.S.	1899
" "	Miss Elsie Mand Wakefield, F.L.S.	1910
" "	William B. Turrill, B.Sc.	1909
" "	John Hutchinson, F.L.S.	1904†
" for India	S. T. Dunn, B.A.	1898
" for South Africa	Miss A. G. Corbishley	1919
Botanical Artist	Miss Matilda Smith	1878
Lecturer (Physics & Chemistry)	Paul Haas, D.Sc.	1909
" (Soils and Manures)	E. M. Crowther	1919
Sub-Assistant	Miss Ada F. Fitch	1892
"	Miss M. G. Aikman	1915
"	Miss M. C. O'Reilly	1915
Assistant (Temporary Technical)	Miss D. M. Rolfe	1915
" " "	Miss D. K. Hughes	1918
" " "	Miss M. Skan	1919
Assist. Keeper, Jodrell Laboratory	Leonard Alfred Boodle, F.L.S.	1904
Keeper of Museums	John Masters Hillier	1879
Assistant, 1st Class	*John Henry Holland, F.L.S.	1895†
" 2nd Class	*William Dallimore	1891†
Preparer	L. J. Harding	1913

† Entered as a young gardener.

		<i>Entered Kew.</i>
Curator of the Gardens	*William Watson, A.L.S., V.M.H.	1879
Assistant Curator	*William Jackson Bean, V.M.H.	1883†
„ 1st Class	*William Nicholls Winn	1890†
Sub-Assistant (Acting)	Miss N. Watson	1916
Foremen :—		
Herbaceous Department	*Walter Irving	1890†
Arboretum	*Arthur Osborn	1899†
Decorative Department	*John Coutts	1896†
Tropical Department	*Thomas W. Taylor	1902†
Temperate House	*Charles P. Raffill	1898†
Storekeeper	*George Dear	1884
Sergeant-Constable	Walter Linney	1892
Packer	H. W. Ruck	1907
Clerk of the Works	G. D. Patterson	1911
„ „ Foreman	J. E. Holman	1912
Medical Officer	*L. C. Burrell, M.B., M.A., B.C. . .	1899

† Entered as a young gardener.

SUB-FOREMEN.

<i>Name.</i>	<i>Department.</i>	<i>Entered Kew.</i>	<i>Previous Situation.</i>
A. F. Baker ..	Arboretum	Oct. 1912 ..	J. Veitch & Sons, Kingston Hill.
F. G. Harcourt	Temp. House Pits	Feb. 1913 ..	Flexford House, Guildford.
R. J. Platten ..	Palm House	May 1919 ..	Rufford Abbey, Notts.
F. M. Rogers ..	Propagating Pits ..	Mar. 1915 ..	Ratton Gdns., Willingdon.
A. J. Thornton	Herbaceous Dept. .	Apr. 1919 ..	Bees, Ltd., Liverpool.
M. Vardy	Temperate House..	May 1914 ..	The Close Gdns, Northal- lerton.
E. J. Smith ..	Ferrieres	Feb. 1915 ..	Gaghurst, Newport Pagnell.
C. E. Weeks ..	Decorative Dept. .	Dec. 1914 ..	J. Veitch & Sons, Feltham.
W. H. Young..	Orchids	July 1919 ..	Warren House Gardens, Stanmore.

GARDENERS.

<i>Name.</i>	<i>Entered Kew.</i>	<i>Previous Situation.</i>
Allaway, B. J.	Apr. 1911	Trained at Kew.
Baker, E.	July 1919	Messrs. Lamb, Hextable.
Bentall, A. S.	Oct. 1919	Lullington Gardens, Eynsford, Kent.
Best, G. A.	Mar. 1919	Bourneville Village Trust Nursery.
Buss, L.	July 1919	Prall & Sons, Paddock Wood.
Butcher, H. G.	Sept. 1919	Heathlings Gdns., Bill Hill.
Clegg, A. S.	Apr. 1915	Carr's Birkdale.
Cook, F. J.	Mar. 1919	Botanic Gdn., Cambridge.
Corbett, G.	July 1914	Kilworth House, Rugby.
Downes, E.	Sept. 1919	Bletchly Park, Bucks.
Godfrey, W. F.	July 1915	Richmond & Sons, Feltham.
Gregory, W.	Sept. 1919	Waldegrave Park, Strawberry Hill.
Grout, G.	Apr. 1913	Silwood Park, Ascot.
Hall, F. W.	Apr. 1914	Sandhoe, Hexham.
Harborne, B. W.	Mar. 1919	Harefield Grove, Middlesex.
Hughes, E. A.	Dec. 1917	Grappenhall Hall, Warringt'n.

<i>Name.</i>	<i>Entered Kew.</i>	<i>Previous Situation.</i>
Hunter, W. G.	Aug. 1919	Aldenham House, Elstree.
Martin, W. E.	June 1919	Avondale, Wellington Road, S. Hounslow.
Matthews, C.	Mar. 1915	Denton Manor, Grantham.
Philpott, G. T.	Feb. 1913	Shortgrove, Newport.
Ruek, E.	May 1909	Trained at Kew.
Syer, F. G.	July 1919	Dunorlan, Tunbridge Wells.
Wagg, H. C.	Oct. 1919	Knowsley Hall Gardens.
Walters, E. A.	Apr. 1919	John Innes Hort. Inst.
Wright, J. W.	Oct. 1919	Ingestre Hall, Stafford.

TEMPORARY GARDENERS.

Bowley, A.	Sept. 1914	Grove Park, Chiswick.
Burfoot, C.	May 1919	Ditton Hill Gdns., Surbiton.
Coates, C. F.	Sept. 1915	Manor Park, Potton, Beds.

IMPROVERS.

Bass, A. P.	Dunk, E. G.	Marshall, A.	Williams, H.
	Cunningham, W. J. M.	Sparrow, A. R.	

FLOWER GARDEN DEPARTMENT.

WOMEN GARDENERS.

<i>Name.</i>	<i>Where trained.</i>
Harper, E. M. (Sub-forewoman)	Kew trained.
Craig, A. P.	Royal Botanic Gardens, Regent's Park.
Lines, I. L.	Miss Lister, Parkgate, Chester.
Rudolf, O.	Swanley Horticultural College.
Wareham, E.	Mrs. Hudson, Quinces, Liphook.
Watson, K.	Kew trained.

FOR more than four years women gardeners have taken their share in the upkeep of the plant collections, braving the discomforts of the tropical plant houses and the changeable outdoor climate at Kew in winter. During that time some ninety women were employed. They came from all parts of the British Empire—Canada, New Zealand, Australia, Tasmania, and South Africa had their representatives, and two were from Russia. Despite the, at times, strenuous work and the long hours in summer, general regret at leaving has been very evident. While loath to depart, one and all have loyally recognised that they must go, to make room for the returned men and other demobilised soldiers who are anxious to benefit by a two years' stay at Kew. As some recognition of valuable work well done six women gardeners are still employed in the Flower Garden department. How long these will remain we do not know, but whatever happens Kew will not soon forget the services of the women gardeners who nobly played their part in the upkeep of the gardens while the men suffered and laid down their lives in the service of their country in the Great War.

OLD KEWITES.

(The names of Life-members are preceded by an asterisk.)

<i>Name.</i>	<i>Left Kew.</i>	<i>Present Position and Address †.</i>
*Abbott, James M.	Sept. 1898 ..	F., Park Farm, Woking Village, Surrey.
Adams, R.	April 1903 ..	St. Joseph's Hospital, Burlington Lane, Chiswick.
Adamson, John	July 1909 ..	H. G., Pen Moel, Chepstow.
Aggett, Walter H.	June 1888 ..	Supt., Public Gdns., Bermondsey, S.E.
Alcock, Mrs. N. L.	Nov. 1918 ..	40 Mortlake Road, Kew, Surrey.
*Allen, C. E. F.	Feb. 1904 ..	C., Port Darwin, N. Territory, Austr.
Allen, Justin	Mar. 1911 ..	York Lodge, Upper Parkstone, Dorset.
*Allt, W. S.	Jan. 1911 ..	Columbia University, N. Y. City, U.S.A.
*Anderson, J. R.	Oct. 1905 ..	Agric. Dept., Zanzibar.
*Anderson, J. W.	June 1910 ..	M., Labis Rubber & Produce Co., Ltd., Labis, Johore, Bahru.
Archer, Sydney	Mar. 1895.	
*Arden, Stanley	June 1900 ..	27 Churchill Rd., Boscombe.
*Armbrrecht, Otto	Jan. 1898 ..	Derneburg, Prov. Hanover, Germany.
Armstrong, James.	Mar. 1893 ..	H.G., The Moorings, Marion, Mass., U.S.A.
*Armstrong, Robert	Oct. 1897 ..	170 Bartlett Av., Toronto, Ontario, Canada.
*Arnold, George	Oct. 1894 ..	Priorswood, Santry, Co. Dublin.
*Arthur, Alec	April 1899 ..	H.G., Foxhill Farm, Bryn Mawr, Pa., U.S.A.
Ashlee, T. R.	April 1910 ..	Kerrisdale P.O., British Columbia.
Astley, James	Nov. 1898.	
Attenborough, F.	Feb. 1896 ..	H.G., Annesley Ho., Villa Rd., Nottingham.
*Aubrey, A. E.	April 1910 ..	Thornton Hall Gdns., Litt. Sutton, Cheshire.
Augull, Karl	July 1902 ..	Maj Nursery, Nowotscherkask, Russia.
*Auton, William J.	Feb. 1897 ..	H. G., Pyrford Court, Woking.
Avins, Charles W.	Oct. 1894.	
Badderly, George	May 1919 ..	10 Windsor Road, Teddington.
*Badgery, R.	Aug. 1906 ..	Supt., Taj & Govt. Gardens, Agra, India.
Baggesen, Niels	Dec. 1900 ..	Birchden, Groombridge, Sussex.
Bailey, A. G.	Dec. 1915 ..	Pembroke College, Oxford.
Bailey, Thomas	Sept. 1892 ..	Ravenscourt Park, W.
Baker, G. A.	Jan. 1911 ..	St. Alban's, Elm Road, Chelmsford.
Baker, John Gilbert, D.Sc., F.R.S., F.L.S., V.M.H.	Jan. 1899 ..	3 Cumberland Road, Kew.
Baker, William G.	Dec. 1887 ..	C., Bot. Gardens, Oxford.
Bale, J. H.	Mar. 1909 ..	Boveridge, Cranborne, Dorset.
*Balen, J. C. van	Mar. 1919 ..	c/o Botanic Gardens, Cape Town, S. Afr.
Bally, P.	Aug. 1916 ..	Bd. de Grancy, 26, Lausanne, Switzerland.
*Band, R.	Oct. 1908 ..	W. African Rub. Plts., Birrimisu, Tafo, Accra, Gold Coast.
Banks, G. H.	Mar. 1906 ..	F., Botanic Gardens, Glasgow.
*Barker, Michael	Mar. 1884 ..	Sec., "American Florist" Co., Chicago.
Barnett, M. J.	April 1914 ..	Kahanui, N. Otago, N. Zealand.
*Bartlett, A. C.	May 1898 ..	Land. Gard., 318 Kew Rd., Kew, Surrey.
Barton, Robert	June 1890.	501 Hawthorn Avenue, Derby, Conn., U.S.A.
Bass, Edward.	Mar. 1899 ..	Leigh Lodge, Abbots' Leigh, Bristol.
Bass, Thomas.	Mar. 1899 ..	13 Friar's Stile Rd., Richmond, Surrey.
*Bates, G.	Feb. 1904 ..	Chase Side Cottage, Eversley Pk. Rd., Winchmore Hill, N. 21.

† Abbreviations: H. G.=Head Gardener; F.=Foreman; N.=Nurseryman; M. G.=Market Gardener; C.=Curator; D.=Director; M.=Manager; B. G.=Botanic Garden.