

PROFESSOR D. OLIVER.

DANIEL OLIVER, F.R.S., F.L.S., LL.D. (Aberd.), was born at Newcastle-on-Tyne in 1830, and, like most of the older botanists, began his botanical career by studying our native plants. From the first he was no mere collector; he was a keen student and investigator. As early as 1847 he was a contributor to the *Phytologist*, giving a list of rare plants found on different geological formations; and his successive articles on British plants were all of a critical character. In 1850 he discovered the obscure and inconspicuous water-weed, *Naias flexilis*, in Connemara; thus adding a new genus to the flora of the British Islands. Soon after this date Sir William Hooker succeeded in obtaining a small grant for assistance in herbarium work, and Mr. A. A. Black was appointed Curator in 1853. The Bromfield bequest of herbarium and library soon followed; Bentham made over his collections and books; and Kew acquired the enormous herbarium formed by William Griffith and others in India. Further help was needed, and Prof. Oliver came to Kew, at the invitation of Sir William Hooker, in February 1858, and began a career of scientific energy and success that has only been moderated by extreme modesty and retirement. Working at the Herbarium for the veriest pittance, he yet found time, without fee, to prepare and deliver lectures on a variety of subjects to the foremen and gardeners of the establishment. How these lectures were appreciated, and how beneficial they were to those who attended them, will be gratefully remembered by many who read these lines. The first were given in 1859, and they were continued until 1874, when a government grant was obtained and the present arrangements initiated; Prof. Oliver retiring in favour of his colleagues.

The first edition of his 'Guide to the Kew Museums' appeared in 1861. By this time he had been appointed Librarian, and had succeeded Dr. Lindley as Professor of Botany at University College, London. In 1863 he was elected a Fellow of the Royal Society, having already been a Fellow of the Linnean Society for ten years. Then, in 1864, followed the retirement of A. A. Black, in consequence of bad health, and Oliver was appointed Keeper of the Herbarium and Library; a post he held with the greatest benefit to the establishment, and to persons engaged in systematic botany, until 1890. During this period he worked with untiring zeal on the constant influx of collections from all parts of the world, and set an example of punctuality and conscientious devotion to duty that has not failed to produce good fruit. Indeed, it was the discharge of his duties that prevented him during later years from continuing the valuable contributions to scientific literature, which had procured him a distinguished position among botanists of all countries. He studied all branches of botany; but his fame will rest on his unrivalled knowledge of flowering plants. This vast store of knowledge has always been open to all who chose to consult him, and its direct influence on the writings of others is only known to the few intimately connected with his official life. Probably no one man ever knew so much as he does of those aberrant types, which puzzle the most experienced botanists.

Shunning, and almost dreading distinctions, Prof. Oliver has not been able to escape them altogether, having been awarded the Royal Medal of the Royal Society and the Gold Medal of the Linnean Society.

It is a pleasure to be able to add that he is enjoying the afternoon of life in good health; and it will be an agreeable surprise to many that he is now an enthusiastic gardener. He is worthily followed by his son in the Botanical Chair of University College.

W. B. H.

ANNUAL REPORT.
(1897-98.)

THE Committee have pleasure in submitting their fifth Annual Report, which reveals the steady growth and prosperity of the Guild. There has been a considerable addition to the number of subscribers, especially life subscribers, of whom there are now 54. The advantages of this form of subscription, both to members and to the Guild, are so many that the Committee again desire to call attention to it.

With the present year the Guild completes the first five years of its existence. It may be well, therefore, to briefly review its financial progress. For the first year, which ended Feb. 26, 1894, our receipts were £30 8s. 6d., our expenses £28 11s. 3d., showing a balance of £1 17s. 3d. The following year brought an increase of receipts to £33 2s. 6d., the expenses were £28 13s., and the balance increased to £6 16s. 9d. In 1895-6 we experienced the advantages of the Life Subscription, and although only seven members availed themselves of it our income was increased to £41 13s. 6d., whilst the expenses were £29 7s. 1d., showing a balance of £18 13s. 2d. In 1896-7 our receipts were £49 18s. 10d., plus £92 8s. 6d. from the Thomson bequest. An increase in the cost of the Journal for additional illustrations raised the expenses to £32 7s. 6d. Our balance, however, was £128 13s. The balance-sheet for the year just ended shows a still more satisfactory state of affairs, our income being £54 2s. 8d., whilst our expenses have been reduced to £30 5s. 1d., leaving a balance for the year of £23 17s. 7d. Our cash balance therefore now stands at £152 10s. 7d. The total amount of our income for the five years is £301 14s. 6d., and of our expenditure for the same period £149 3s. 11d.

The Guild has no debts nor liabilities beyond the obligations to life members. Our funds are, however, more than sufficient to repay to each the unrequited balance of his subscription, without trenching on the Thomson bequest.

The Journal continues to give satisfaction, the photographs being much appreciated. There is a general desire for more "Notes, Correspondence, etc.," to meet which, however, the Committee must rely upon the active co-operation of all members. Brief accounts of collecting or other expeditions, especially in the Colonies and India, of changes of position, of peculiar methods of garden management, of professional achievements by Kewites or any personal information will be most acceptable.

The Directory continues to grow in usefulness, thanks to the assistance of various members. Particulars of any change of address, death, etc. should be communicated to the Secretary.

The Committee regret to have to record the death of several well-known Kewites, among them being Mr. W. Scott, F.L.S., Director, Botanic Gardens, Mauritius; Mr. F. E. Willey, Curator, Botanic Station, Sierra Leone; and Mr. W. Fowler, Head Gardener, Clifton Park, Baltimore.

The Committee are of opinion that the right of membership of the Guild should be extended to all who are or have been employed in a position of responsibility at Kew. They therefore recommend the following alteration in Rule ii. :—

“ The Guild shall consist of all who are or have been employed as Gardeners or in any position of responsibility in the Royal Gardens, Kew.”

Balance Sheet, 1897-8.

<i>Receipts.</i>		<i>Expenditure.</i>	
	£ s. d.		£ s. d.
Balance from 1896-7	19 18 0	Printing etc. of Journal ...	28 2 6
Subscriptions and Advertisements.....	27 19 10	Postage, Stationery, etc. ...	2 2 7
Life Subscriptions	22 0 0	Balance	43 15 7
Interest on N.S. Wales Stock	3 10 0		
Interest on Savings Bank Deposits	12 10		
	<u>£74 0 8</u>		<u>£74 0 8</u>

Capital Account, Feb. 24, 1898.

£100 N. S. Wales Stock @ 108 $\frac{3}{4}$	£ 108 15 0
Deposited in Post Office Savings Bank	43 14 8
Cash in hand	11

Cash Balance

£152 10 7

Stock in hand :—

Journal for 1893, 13 copies @ 2s. ...	£ 1 6 0
„ 1894, 60 „ @ 1s. ...	3 0 0
„ 1895, 50 „ @ 1s. ...	2 10 0
„ 1896, 86 „ @ 1s. ...	4 6 0
„ 1897, 65 „ @ 1s. ...	3 5 0
	<u>14 7 0</u>

Total Assets

£166 17 7

W. J. BEAN, *Treasurer.*

W. WATSON, *Secretary.*

We have examined these accounts and found them correct.

C. H. CURTIS } *Auditors.*
R. H. PEARSON }

February 24th, 1898.

PROCEEDINGS.

General Meeting, Feb. 24, 1898.

The Meeting was held in the Garden Lecture Room by permission of the Director. There were about seventy members present.

The Secretary read the Annual Report, the adoption of which was moved by the President. He thought the Guild had occasion to feel proud of the position it now occupied in the respect of horticulturists in general and in the affection of members in particular. The Journal was now a recognized authority on the work and whereabouts of Kew men both Present and Old. The details given in the Report showing the stability of the Guild financially were most satisfactory. He urged Kewites abroad to send notes for the Journal.

Mr. W. H. Ferguson (1862) seconded. He was heartily pleased with all the information the Report contained, and supported the Committee in their proposal to extend the rights of membership to botanists, etc.

Mr. C. H. Curtis (1892) proposed that some indication should be given in the Journal of those who did not support the Guild by their subscriptions or show any interest in its proceedings. He also asked for further information as to the proposed alteration of Rule ii.

Mr. R. H. Pearson (1890) supported the proposal made by Mr. Curtis. He thought the members generally would interest themselves in bringing the Guild and its objects before the notice of those who at present appeared to be ignorant of its existence. He was in favour of publishing all details as to finances and members. He also recommended that the Annual Report should be printed and circulated before the General Meeting.

Mr. J. Weathers (1888) said he hoped to see before long that all members had become life-subscribers. If the Committee had five times the present balance at the bankers' their work would be considerably lessened, and the Guild might rest assured that it would go on and prosper. He was decidedly in favour of the alteration of Rule ii, as proposed by the Committee. Surely all those whose names are now included in the Journal among members of the Kew Staff were entitled to continue to be members of the Guild if they left Kew. Whilst it was not intended to include anyone below the status of a gardener, all who held positions of responsibility should be welcomed.

Mr. A. Aikman (1895) hoped the Committee would not discontinue their efforts to bring all members into the fold. He recommended that a circular should be prepared and sent to those who had not paid their subscriptions. This was the first General Meeting he had had an opportunity of attending, and he was agreeably surprised at the number present.

Mr. J. Gregory (1866) had always understood that the Guild included all Kewites, whether botanists or gardeners. He thought it absurd to exclude such men as Professor Oliver because he had retired from employment in the Gardens. He was in favour of the alteration of the Rule.

Mr. W. Dallimore commented on the zeal of some members as shown at the meetings, but which generally seemed to end there. It was easy to say this, that, or the other should be done. The Guild was started chiefly in the interests of present Kewites, and the Journal was the outcome of a desire to publish some of the essays read before the Mutual Improvement Society. He was not complaining that the essays had been crowded out, but he hoped the Committee would continue to look after the young as well as the Old Kewites.

Mr. Tannock hoped Old Kewites would send more interesting notes of their experience for publication in the Journal. Their successes, and even their failures, if honestly chronicled, would be encouraging and helpful to the younger members, who hoped to climb the ladder of success. When a young man entered Kew now, he got hold of the Journal and was at once *au fait* with what he had to do and what he might hope to accomplish. He supported the appeal for subscriptions. Money made success; at any rate, not much could be done without it, and he thought a great deal was done for the small amount subscribed.

The Secretary explained the object of the proposed alteration of Rule ii. He also read letters from several Old Kewites who were unable to attend the meeting. He pointed out that all who had paid life-subscriptions had their names prefixed by a star in the Journal. Subscriptions, he said, continued to come in from members who had not at first responded.

A proposal to alter the wording of the amendment to Rule ii. was submitted to the meeting, but the original was preferred. The Report was then adopted.

Portraits of Professor Oliver and other distinguished Kewites were exhibited at the meeting by Mr. W. B. Hemsley.

The election of Officers was then proceeded with. Mr. Ferguson proposed the re-election of the present Committee *en bloc*, which was seconded by Mr. W. H. Young and carried *nem. con.* Messrs. Pearson and Curtis were re-elected as Auditors. Mr. W. N. Sands was elected in place of Mr. W. S. Sharp, who had left Kew. Mr. Pearson proposed and Mr. Watson seconded, that Mr. H. F. MacMillan, Curator, Botanic Gardens, Ceylon, should be added to the Committee; he was accordingly elected.

A vote of thanks to the Chairman terminated the proceedings.

NOTES, CORRESPONDENCE, ETC.

ALTERATIONS AND IMPROVEMENTS 1897-8.—The completion of the Temperate House will be an accomplished fact in August next. The house will then be by far the largest plant-structure in the world, its superficies being nearly two acres and its length nearly 600 feet. It will afford accommodation to three groups of plants, namely:—Intermediate plants (Mexican, etc.), in the south end; Green-house plants (Australian, etc.), in the centre block; and Cool-house (high Himalayan, New

Zealand, etc.), in the north end. The Octagons will be furnished with standards and pyramids of such plants as oranges, bays, and rhododendrons.

The Nursery-pits are being enlarged to afford a better supply of young plants for the Temperate House.

The Tropical Fernery has been partly rebuilt, with a great improvement of both internal and external effect. The use of green-glass has been altogether abandoned.

A new house for *Nepenthes* has been built by the side of the T-range. It is 70 feet by 12 feet and 9½ feet high. It affords excellent accommodation for a large collection of *Nepenthes*, including 19 species and 28 hybrids and varieties.

The Orchid Houses (Nos. 13 and 14) have long been inadequate for the needs of the now large collection of these plants grown at Kew. They are therefore being replaced by four smaller houses after the style most approved by the leading Orchid-growers. An addition is also being made to the Orchid-pits.

Her Majesty the Queen has graciously presented to Kew the Royal Palace known as Kew Palace, and the Queen's Cottage and grounds. It is intended to utilize the Palace as a Museum and Picture-gallery. The Cottage-grounds will be left in their present semi-wild and exceedingly picturesque state, access to them being afforded by a broad path with a light fence on each side extending from the Isleworth Gate towards the Observatory, and from thence to the left past the Cottage to the Cypress Walk.

A Water-lily pond has been made in the Pinetum. It is supplied with condensed water from the steam-engines at the waterworks. As the temperature of this is fairly warm, it is hoped by this means to be able to cultivate in the open air many tender aquatics. This has already proved successful with the red *Nymphaea Lotus* of India, and with *Thalia dealbata* and some other plants. It has been planted with the fine coloured water-lilies raised by Mons. Latour-Marliac, which are an addition to modern open-air gardening, as notable as they are delightful.

An improved Water-supply for the Gardens having become necessary owing to the extension of the out-door collections, an additional main, two-and-a-half miles long, and numerous branches have been laid and a triple-expansion pumping-engine added at a total cost of £7500.

EARLIER OPENING OF KEW.—For some years past an agitation for the earlier opening of the Gardens, fostered chiefly by local malcontents, has been resisted by the authorities on the ground that the additional expense earlier opening would entail would not be justified by results, and that the privileges enjoyed by students, artists, etc., who were admitted before noon would thereby be extinguished. These objections have, however, been overruled, and it has been decided by H.M. First Commissioner of Public Works and Buildings that the Gardens shall be opened on and after June 1st at 10 A.M. instead of 12 A.M. as hitherto.

OFFICES for the Curator and Assistant-Curator, a Library and Meeting-room for the Gardeners, and an official residence for the Assistant-Curator have been provided in the large house which stands in the east corner of the Melon-ground. This building, formerly a private residence and known to recent Kewites as Bell's House or Descanso Lodge, was the official residence of Director Aiton. The room—a very large one—which is now the gardeners' library, was in Aiton's time the King's room, having been built by George III. for his convenience when visiting his garden. The term Melon-ground indicates that this part of the garden contained the fruit-houses when George III. was king.

THE ROSE GARDEN, the formation of which has already been alluded to, has proved a charming addition to the Arboretum. It is near the Pagoda, the greater part being sunk several feet below the ground-level and surrounded by trees and shrubs. It is on the site of one of the numerous gravel-pits which in the earlier days supplied Kew with the material for its 15 miles of gravel paths. It affords an instructive example of how an unsightly hole may be treated. For three or four months in the year there is a display of flowers, commencing with the varieties of the Scotch rose, Austrian briar, etc., at the end of May, and continuing through June and July into August, when the beautiful American Prairie rose (*R. setigera*) still remains in flower; there are also varieties of the *R. indica* section that keep on blooming till the early frosts.

THE BAMBOO GARDEN will well repay a visit, especially by those who have not been at Kew during the last four or five years. Planted in 1892, the bamboos—of which there are about forty kinds—are now well established, and the collection has already acquired a national reputation. It was the first, and is, indeed, still the only public collection in the country that is as complete as our present knowledge of this group of plants and the climatic conditions of the country allow of.

VISITORS DURING 1897.—The number of persons who visited the Royal Gardens during the year 1897 was 1,239,683. The total number on Sundays was 485,544, and on week-days 754,139. The maximum number on any one day was 84,431 on June 7 (Whit-Monday), and the smallest 57, on March 18.

RECENT APPOINTMENTS FROM OR THROUGH KEW.

Louis Gentil,	Director, Coffee and Cocoa Estates, Equatorville, Congo.
Patrick J. Gray,	Foreman, Trinity College Botanic Gardens, Dublin.
Walter Haydon,	Curator, Botanic Station, Sierra Leone.
John H. Holland,	Curator, Botanic Garden, Old Calabar.
Harry Holley,	Assistant, Municipal Gardens, Cape Town, S. Africa

Samuel Junod,	Missionary Gardener, St. Louis, Senegal.
Harold B. Lloyd,	Assistant-Curator, Botanic Garden, Old Calabar.
George B. Mallett,	Head Gardener, Mandeville House, Isleworth.
Richard Mentzel,	Manager of Plantations, Klerksdorp, S. Afr. Republic.
Emil Mische,	Assistant, Messrs. Olmstead, Landscape Gardeners, Brookline, Mass.
William S. Sharp,	Head Gardener, Ness, Neston, Cheshire.

Kew HAND-LISTS AND GUIDES.—These catalogues of the collections of plants grown at Kew continue to be in general demand. They are valuable as guides to correct nomenclature and also as indicating the extent and variety of the plants under cultivation in British gardens. The list of Indoor Monocots was completed last year; this leaves only the miscellaneous stove and greenhouse plants, including Cactæ, to be prepared, and then the whole of the collections will have been catalogued. The following is a complete list of the Guides on sale at the Royal Gardens, Kew:—

Key Plan and Index to the Royal Botanic Gardens, Kew. 4th ed. 1897. Price 2*d*. By post, 2½*d*.

Official Guide to the Museums of Economic Botany. No. 1: Dicotyledons and Gymnosperms. [Under revision.]

Official Guide to the Museums of Economic Botany. No. 2: Monocotyledons and Cryptogams. 1894. Price 4*d*. By post, 5*d*.

Official Guide to the Museums of Economic Botany. No. 3: Timbers. 2nd ed., revised and augmented. 1893. Price 3*d*. By post, 4*d*.

Official Guide to the North Gallery. 5th ed., revised and augmented. 1892. Price 4*d*. By post, 5½*d*.

Hand-list of Trees and Shrubs grown in Arboretum. Part I.: Polypetalæ. 1894. Price 8*d*. By post, 10*d*. Part II.: Gamopetalæ to Monocotyledons. 1896. Price 1*s*. By post, 1*s*. 2½*d*.

Hand-list of Coniferæ grown in the Royal Gardens. 1896. Price 3*d*. By post, 4*d*.

Hand-list of Trees and Shrubs, Parts I. and II., and Hand-list of Coniferæ, in one volume, cloth boards. Price 2*s*. 8*d*. By post, 3*s*. 1*d*.

Hand-list of Ferns and Fern Allies cultivated in the Royal Gardens. 1895. Price 6*d*. By post, 7½*d*.

Hand-list of Herbaceous Plants cultivated in the Royal Gardens. 1895. Price 1*s*. By post, 1*s*. 3½*d*. Cloth boards, price 1*s*. 9*d*.; by post, 2*s*. 0½*d*.

Hand-list of Orchids cultivated in the Royal Gardens. 1896. Price 6*d*. By post, 8*d*.

Hand-list of Tender Monocotyledons cultivated in the Royal Gardens. 1897. Price 9*d*. By post, 11½*d*.

Hand-list of Orchids and Hand-list of Tender Monocotyledons, in one volume, cloth boards. Price 2*s*. By post, 2*s*. 4½*d*.

AN EXCELLENT BOOK FOR TROPICAL CULTURES.—Our friends in the Tropics may be glad to know of a book which can be recommended as a trustworthy guide to the management of numerous important plants. It is published by Macmillan & Co., London & New York, its price being 6s. :—

A TEXT-BOOK
OF
TROPICAL AGRICULTURE

BY
H. A. ALFORD NICHOLLS, M.D., F.L.S., C.M.Z.S., ETC.

With Illustrations.

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PART I.

ELEMENTS OF AGRICULTURE.—Introduction. Soils. Plant Life. Climate. Manures. Rotation of Crops. Drainage. Irrigation. Tillage Operations. Pruning. Budding and Grafting.

PART II.

AGRICULTURAL PRODUCTS.—Introduction. Coffee. Cacao. Tea. Sugar. Fruits:—the Orange; the Lime; the Banana and the Plantain; the Coconut; the Pine-apple. Spices:—the Nutmeg; the Clove; Pimento; Cinnamon; Ginger; Cardamoms; Pepper; Vanilla. Tobacco. Drugs:—Cinchona; Castor Seeds; Coca; Jalap; Sarsaparilla. Dyes:—Anatto; Turmeric; Logwood; Indigo. The Tropical Cereals:—Maize; Rice; Guinea Corn. Food Plants:—Cassava; Arrowroot; Tous les-mois; the Yam; the Sweet Potato; the Tania. Appendix.

A ROYAL COLLECTION OF BRITISH PLANTS.—His Majesty the King of Siam visited Kew in October last year and displayed an exceptional interest in and knowledge of plants of all kinds. As a souvenir of his visit he purchased and took away with him the prize collection of British plants formed by Mr. D. Tannock in 1896. It numbered over 400 species, all mounted and named.

MR. J. C. NEWSHAM (1896) writes :—“ I have shifted my quarters from the Midlands to the South, having been appointed Horticultural Lecturer to the Hampshire County Council in August last; I am pleased to be able to add that I am getting on first class. My work is of a very interesting nature, and I have become greatly attached to it. I expect to form a new experimental station for the Council, and then the work will be even more interesting.”

MR. ROBERT MACKELLAR (1869) writes :—“ I send you my subscription, and a contribution to the Jubilee Fund. I was pleased to learn by the notes of ‘ A Present Kewite on Kew ’ that the status of the young gardeners showed so much improvement since my time at Kew. The better wages, the monthly half-holiday, and the annual week’s leave are very good items in the list of concessions. I was amused with your contributor’s

experience of lodgings, and was reminded of an old companion of mine who was often vexed at the manner in which his provisions changed hands. On one occasion he brought home some fine fresh herrings, but ere handing them to the landlady he took the eyes out. The herrings that made their appearance on the table next day, however, had eyes, so that he could firmly pronounce them not his. The first night I spent in Kew was one of such an experience that I was the earliest up next morning and dared not go back for another night. I was so bug-bitten about the neck and wrists that my appearance was rather more than blooming. It surely would be an easy matter for the authorities to have, shall I say, a 'Barracks' built where everything could be kept in order, and would undoubtedly prove economical. I would prefer lodgings if I could get good ones. An expression of opinion could be got by notes—spread over a year or two—as to whether it was a desirable idea to carry out."

OUR JUBILEE APPEAL.—As a result of the appeal made last year (*Journal*, p. 18) for subscriptions for the Royal Gardeners' Orphan Fund and the Gardeners' Royal Benevolent Institution, the sum of £4 10s. was received. It was divided equally between the two Charities mentioned.

A SOCIAL EVENING AT KEW.—On Wednesday, December 29th, a private gathering of Kewites and their lady friends was held in the Gymnasium, when a musical entertainment, dancing, and refreshments were provided. There were songs by Messrs. W. H. Johnson, W. Leslie, A. C. Bartlett, and W. N. Sands; a reading by Mr. J. M. Abott, a zither solo by Mr. Arm-brecht, violin solos by Messrs. R. C. Gaut and E. Kemp; several ladies also performed. The evening was so successful that it is intended to repeat it annually.

MR. HUGH A. PETTIGREW (1893) has lately been appointed Head Gardener to Lord Windsor at St. Fagan's Castle, Glamorganshire, a large and good place we are informed, both as to the character and extent of the garden and the interest of the family. We congratulate our tall friend and wish him success.

MR. WILLIAM S. SHARP was appointed in September last Head Gardener to J. K. Bulley, Esq., West Kirby, Cheshire, who is a keen collector and grower of alpine and herbaceous plants. Mr. Sharp has had practically to make a new garden, and we are informed that it promises to be of more than ordinary interest and charm. He is also in requisition as a musician, having been appointed organist to the Parish Church at West Kirby.

MR. W. R. GREENWAY (1885) has had the misfortune to lose a leg through a gun accident, a friend of his employer Sir Lionel Darrel, Bart., having shot him in the leg after a rabbit hunt on the estate. He was taken to the hospital, where the shattered limb was successfully amputated

below the knee. Luckily our friend's constitution was such as to enable him to support the operation, and a few weeks after he was able to enjoy his pipe and hop about on his crutches, making the best of one leg, as he expressed it. Sir Lionel showed him every kindness, and he retains his post as head gardener.

MR. ROBERT PATTERSON (1875), in sending his subscription for this and previous years, wrote:—"I notice that at your last General Meeting a proposal was made that the names of non-subscribers should be omitted from the Directory. I suspect that many such are, as in my case, only so from oversight or ignorance of the Guild's existence. At any rate erasing their names is not, I think, a suggestion likely to meet with much approval, and for my part I would rather double my subscription to see them there, as I am sure the Journal must be very interesting to every Old Kewite even if he does not pay the shilling, if such there be. You will notice the change of my address since last year, but please do not alter it in the Journal, as I shall only be here until November 1898, and any correspondence directed to Ashburne will certainly reach me."

MISS ANNIE M. GULVIN, who left Kew in January 1897 to take charge of the garden of J. Brogden, Esq., Iscoed, Ferryside, S. Wales, has kindly sent for publication in the Journal the following short account of her first year's experience as a head gardener. Miss Gulvin has the distinction of being the first woman to take sole charge of a garden on exactly the same terms as a man. Her success has been a source of satisfaction to all who know the nature of her undertaking, and clever though she is, many will be surprised that one of her sex so young should have conquered all the difficulties of a first situation which evidently was not of the apple-pie order. She writes:—"My first impression of the country seat of Sir Thomas Picton, of Waterloo renown, was the beauty of its situation on one of the Welsh hills and surrounded by some of the prettiest scenery of South Wales. Unfortunately this delightful impression did not stay with me when viewing my special charge the garden, for the former head gardener had left a few months before, and the place had been neglected in consequence. The old age of the garden was easily seen in the ancient pear trees on dilapidated walls, and the black top soil overrich with plentiful supplies of manure and absence of the correcting influences of lime. The four vineries, orchard-house (containing about thirty peach trees, and vines), and cucumber-frames also date back to the early days of culture under glass, being heated by hot-air flues. Insect pests of all kind abounded, and to these troubles were added rats, mice, and birds—starlings especially, which took away whole berries at a time, and did not hesitate to break the lights in their efforts. The grapes did not turn out altogether satisfactory, but it was consoling to learn they were no worse than those of other years, and the causes of many of the ills—mildew especially—were soon apparent when the

border (an outside one) was examined in October. It consisted of about 16" of black solid soil with no drainage material (except the skeleton of a horse!) over a layer of concrete. The rainfall here is excessive, and the fibrous rootlets had all rotted, the thick woody roots were all that remained. I covered the border with pieces of zinc and boards, but it was too late to do much good.

"Six weeks of unusual dry weather helped to lighten the work of renewing the borders, and we were fortunate enough to have an unlimited supply of top-spit turves, bone-meal, and all the requisites of an ideal border. About the same time the two small vineries were cleared of their vines—one was planted with peach trees in a mixture of soil similar to that used in the vine border, and the other was fitted with hot-water pipes and prepared for tomatoes etc. The conservatory was blown down during a heavy gale, an ill wind that supplied us with a good number of frames; but a new conservatory is now in process of erection. During March we were busy planting, as it had been decided to lessen the work by dispensing with bedding-out and planting the beds with shrubs. The flower garden was turfed and laid out anew, new beds cut and filled with rose-trees, yuccas, cannas, pampas-grass, etc. In the front of the house the beds were planted with *Rhododendron nobleanum* and azaleas, with a border of variegated *Euonymus*. A narrow border round part of the house took about 300 *Euonymus*, with a background of *Mahonia aquifolium*.

"The kitchen garden covers five acres and is on a S.E. slope, well sheltered and suitable for early vegetables, the surplus of which is sent off to hotels once or twice a week, with baskets of flowers such as arums, geraniums, sweetpeas, chrysanthemums. A large portion of the ground is planted with strawberries, of which during the season from 18 to 20 lbs. were sent off by 7 A.M. every morning, the early supplies realizing 1s. per lb. This good result and ready sale induced the planting of 3000 runners late in July, which have already made good plants. The orchard-house proved useful for growing early potatoes and tomatoes. Rabbits ate off part of the early Brassicæ crops, and it was not until fourteen rats had been caught that we had any hopes of the main crop of peas. The care of the fruit trees is a large item. Every available wall supports a fruit tree of some kind, and besides two grass orchards there are many pyramid and bush fruit trees. We noted an interesting fact with regard to the red-currant bushes. Some of the buds were attacked with a mite which under the microscope tallied exactly in all points with the black-currant mite (*Phytoptus ribis*), and as the red and black currant bushes are in different parts of the garden the fact was more striking, for according to Miss Ormerod, 'the identity of the gall-mites which cause the respective attacks on black and on red currants had not yet been made out.'

"It was impossible last year to give much attention to the old trees in the orchard, except spraying with Paris green, but we have lately had an

opportunity of overhauling them, thinning them out on the Kew system of tree-pruning, liming them for lichen, etc.

“As you know I have a ‘lady gardener’ as an assistant and four men besides. I have already had the pleasure of winning a first prize at a local show for vegetables, and I think I may take it that I am giving satisfaction to my employer from his having raised my salary £10 a year.

“Our garden is a source of interest to the craft, and we have many callers, evidently curious to know what a woman gardener can do. My staff is now quite contented to be controlled by one of the ‘weaker’ sex. I think that when men see that our intentions are serious and that we are not afraid to work, they respect our efforts to find employment outside the very restricted boundary within which till recently woman’s work was confined. Altogether my situation is a most agreeable one. Miss Groome and I occasionally go for a long tramp into the country.”

MR. AXEL LANGE (1896) writes:—“You may like to hear something of my doings since I left Kew to go to Brussels in July 1896, where I was employed for six months in the Botanic Garden. From thence I got employment in Mr. Späth’s nursery in the neighbourhood of Berlin. After spending three weeks last summer amongst the alpine plants in the Tyrol I returned to Copenhagen, where I am now engaged as foreman in the Botanic Garden. This garden was made in the years 1872–77 on a part of the old fortifications of the town; it is therefore hilly and very picturesque. It has an area of about 25 acres, and belongs to the University. The houses, which are mostly double-glazed, are heated by steam. The palm-house measures at its highest point 55 feet. One part of the gardens is planted with herbs indigenous to Denmark, another with medicinal plants, and in another we have plants arranged in groups after their biological characters; for instance, one group with succulent-leaved plants, another with succulent stems, another with plants having scaly leaves and flattened stems, as in *Ruscus aculeatus*, whilst yet another is made up of climbing plants. Most of these plants have to be wintered indoors. I have lately written a little description of Kew, which has been published in our botanical periodical. I send you a reprint of it. Some three weeks ago my dear father (Prof. Dr. J. Lange) died suddenly. We had only celebrated his 80th birthday a fortnight before.”

MR. E. B. BEHNICK (1894) writes:—“I send herewith my life-subscription. The proposal to include botanists and others as well as gardeners who have been employed at Kew ought to meet with general approval. I am interested in the accounts given in the Gardening papers of the new houses and other additions to Kew. Your *Nepenthes*-house must be a great attraction. We have a large collection of *Nepenthes* here. We have many new introductions from tropical Africa which will soon be available for Kew in exchange. Our new botanic garden is

started at Dahlem, $2\frac{1}{2}$ miles from Berlin. We are also to have an Academy for gardeners, a 'Hochschule,' of 500 acres, with 4 acres of glass. This is intended as a sort of training-school for horticulture."

WILLIAM CAMERON (1857).—The following communication from Mr. MacMillan, Curator, Botanic Garden, Ceylon, tells the story of a distinguished Old Kewite of whose existence we were previously ignorant. There is a record of his appointment in 1857 as "Conductor of the Peradeniya Gardens, Ceylon, under Mr. Thwaites, at a salary of £150 per annum and a house," among the notes left by "Jock" Smith, but nothing more. Mr. MacMillan writes:—"I have recently discovered in Ceylon an addition you may make to your directory of Kewites in the Journal. This is Mr. William Cameron, a proprietary tea-planter in Ceylon, who left Kew in the early fifties to take the post of head gardener at the Royal Botanic Gardens, Peradeniya, Ceylon. Guessing that Mr. Cameron might have hailed from the mother-of-plants (Kew), I ventured to write him, and the following is his reply:—"Dear Sir, yes, I am an old Kewite—likely one of the oldest now living, it being over forty years since I left Kew. I am afraid if I were to give the account you ask for, it would simply be stirring up some dry bones of the dead. Yes, I am a Scot—was a Cameron ever anything else? Right you are; I am also married—got married to Kate in Scotland, before coming to Kew. Children, is it? Yes, lots; now scattered all over the world, whilst some have gone to God. Many thanks for your kind recognition of my work at the R. B. G. Peradeniya. I planned the Fernery (No. 1) and completed the Central Drive. Most of the giant bamboos on the riverside (the wonder of Ceylon) were planted by me, and I daresay the credit of growing the first Cinchona in Ceylon is also due to me. The *Amherstia nobilis* trees near the main entrance were planted by Dr. Thwaites and myself one Sunday morning. Better the day better the deed! I mean to have the pleasure of calling upon you shortly . . . Yours sincerely, W. Cameron."

Mr. MacMillan continues:—"These gardens (Ceylon) continue to improve both in appearance and public utility. We have a large program of improvements, additions, etc. arranged for next year, included in which are a new Laboratory and accommodation for students, as well as increases to our Library and Labour votes. Both my wife and self, also the youngster, are keeping in first-rate health. We have had beautiful weather since May last, and we expect it to keep cool and balmy up to next January. I myself am quite at home with the natives, being now able to dispense with an interpreter as far as the Sinhalese language is concerned. I have been interested in reading about the addition to the Temperate House, and the successful growth of the plants planted therein. Fancy having mangoes and avocado-pears in fruit there. The latter is a delicious fruit when taken with vinegar, pepper, and salt, without which it is not by any means attractive to European palate."

MR. R. PROUDLOCK (1888), Curator of the Botanic Gardens, Ootacamund, Madras, writes:—"The last Journal is full of interesting news, and is greatly appreciated by all Anglo-Indian Kewites. I am getting on well here; I like the work, of which there is abundance; the climate is all that could be desired, and I am quite set up in health again, seldom having anything the matter with me, whereas in Calcutta I was rarely free from some ailment or other. I am sending you P.O. for £2 for my life subscription to the Guild and a set of the Journals, which please send to my brother in Sunderland, who is a gardener, and will soon be old enough, and I hope worthy, to be admitted into Kew.

MR. J. A. GAMMIE (1865), Deputy-Superintendent, Government Cinchona Plantations, Sikkim, has retired from that post. His share in working out in a practical form the process by which a cheap supply of quinine is now ensured to India was recorded in the *Kew Bulletin* in 1890. "With great perseverance he mastered one detail after another, using only the simple appliances that he found at hand, until he was able to employ the process on a considerable scale. The valuable results, therefore, which have been thus far attained in the practical application of the process, are entirely due to his skill and energy." He has been succeeded by Mr. R. Pantling (1879).

MR. G. H. CAVE (1896) wrote from Calcutta in May last:—"I have asked my brother in London to forward you my subscriptions to the Guild and the Cricket Club. I landed here 6 months ago yesterday, and am glad to say I have been quite well since. It is pretty warm here now, but I enjoy it, and on the whole I don't regret coming here. Everyone is very good to me. I enjoy the work, which is plentiful but not too exhausting, also the country, and the life generally. I am afraid I rather upset some of the boys on this side by coming as I did, and they made it a bit warm for me for a time. It was of course my coming out as 'Supernumerary Gardener' on the new agreement that upset them. In case there should be another vacancy before long, which is quite possible, I may as well jot down a few hints. R. 150 a month and a house are, of course, not a lot. By the way, the 'house' does not as yet exist, but I am told it will be built shortly. It costs us about a rupee per day for food. Clothes are about the same price as in England. For another R. 30 or R. 32 per month you can get four native servants, all to your own cheek. So my household, and indeed personal expenses as well, are well within the R. 150. It is easy to spend that and more if one keeps step with a set of fellows of about his own rank.

"My special work is to keep an eye on all the outside garden. The flower garden, plant houses, and nursery are Mr. Davies' special charge; the Office being Mr. Lane's. I superintend the work done by the 150 coolies, 50 women, and 16 boys. They work more or less in gangs, under the supervision of a sirdar or foreman. As this garden comprises

270 acres, and is irregular in shape, these gangs take some looking after. A regular scheme has been in progress for some years of relaying-out the gardens, altering the levels and curvatures of the roads, the levels and slopes of the lawns, and the depths and outlines of the lakes, etc. This work is done in the hot and cold seasons, the rainy weather being unfavourable. I am picking up the language, and can now make myself understood. I am making a collection of plants, which provokes the natives' pity and drives my 'bearer' mad. You should hear the pitying, contemptuous tones in which, after watching you collect and examine a specimen, they tender you the information that it is 'only a wild plant.'

MR. WALTER DRAPER (1892) continues to make progress, both professionally and socially, among the Egyptians in Cairo. Admiral Blomfield, when at Kew a few months ago, spoke very highly of Mr. Draper and his work. He has prepared a Manual of Horticulture for Egypt, entitled,

LE JARDINAGE EN EGYPTE:
 MANUEL DE L'HORTICULTURE DANS LA BASSE-EGYPTE,
 PAR
 WALTER DRAPER;
 AVEC INTRODUCTION
 PAR
 L'AMIRAL R. M. BLONFIELD, R.N.

MR. G. J. BEAN (1896) writes:—"Since writing to you last I have left Mr. Leighton's at King William's Town and am now Supt. of Plantations, Doornkop, Indwe, Cape Colony. I think it will turn out a very suitable place for me. I have entire charge of the plantations here—or rather will have, for there is nothing but the bare veldt as yet—belonging to the Railway, Colliery and Land Company. The chief industry is the coal mines, which are paying well, although the Company has only been in existence about eighteen months. My first work will be the growing of timber-trees, such as gums and pines, for using as props, etc. in the mines. Afterwards the Company intends to go in for fruit-farming. They own about 140,000 acres in this district, so I shall not be cramped for room. The Directors are giving me a house to live in. The only drawback is the quiet. The 'plantation' is about 4 miles from Indwe, and I have got absolutely no company except Kaffirs, who are in abundance round here. At present I am staying at the Hotel, doing nothing, as the house I am to occupy is not yet put in order and the tools are not yet to hand.

"Indwe is a very rough place. We have all nations and colours staying here, and a very lawless set they are too—drinking and gambling all night. There are no police except about half a dozen of the Cape Mounted, who are supposed to patrol a district of 40 miles radius. The place is situated about halfway between King William's Town and the

borders of Natal. It is 4000 feet above sea-level and much cooler than near the coast. The country around is rather pretty; we are just on the edge of the Stormberg range of mountains, some of which rise to 9000 feet above sea-level. My house is situated at the foot of a hill (Doornkop means 'Thorn-hill') which has about a dozen scrubby Mimosas to boast of, but this is the only tree or shrub vegetation to be seen anywhere. The summer has been very cool compared with last year and also very wet. Fifteen inches of rain have fallen these last six weeks. Such a wet and therefore good season has not been known for 20 years. The veldt looks quite like an English meadow; owing to the rinderpest there are not enough cattle to keep the grass down. I hope to get in 200,000 trees this season. Trade is still very depressed at Johannesburg, as it is also at Bulawayo, but in the latter place it has never had a fair start. Everyone has great confidence that it will go ahead in time. Mr. Cecil Rhodes is one of the chief shareholders in this Company, which is connected with De Beers. The Directors are allowing me a perfectly free hand, and if I get on all-right I shall not need to trouble about anything else for a good while, as I can make this almost anything I like. I am anxiously looking forward to seeing the Journal this year. Most of my old friends will have left Kew by now."

MR. JOHN H. HOLLAND, who was appointed in 1896 Assistant Curator at the Botanic Station, Old Calabar, has succeeded to the Curatorship in consequence of the death of Mr. H. Billington, which occurred on the eve of his retiring from African service after ten years' sojourn in the Niger region. Mr. Holland has our good wishes.

MR. H. B. LLOYD has been appointed Assistant Curator at Old Calabar. He left Kew for Africa a few days ago.

MR. T. B. DAWODU (1894) sends an account of an official trip into the interior of Lagos made by him and Mr. Leigh at the instance of the Governor, for the purpose of enquiring into the rubber industry and to collect specimens. Their report will be published elsewhere. They were absent nearly six months, visited extensive forests of rubber-trees, and gave directions for the collecting of rubber and the proper care of the trees. The plants collected included ferns, aroids, orchids, Crinums, and a rubber-yielding Stephanotis-like climber. Mr. Dawodu saw many plants which he believes would be valuable horticulturally if introduced into England. We hope he will soon be in a position to send them to Kew. He has since been employed in making a new experimental garden at Ikorodu, in Lagos.

MR. JOHN MAHON, who was appointed last year Forester in Zomba, British Central Africa, sends the following interesting account of his journey to that Colony:—

"The Editor has kindly invited me to write an account of my journey

to, and impressions of this remote outpost of the British Empire. I left London in June last *en route* for Durban, Natal, where we were enabled to spend several enjoyable days. With all its dusty storms I must say, 'That Durban is a pleasant place to me, who loves to see the sun shine every day, and flowers, not nailed to walls, festooned from tree to tree.' The beautiful Botanic Garden, the parks and squares, the Town Hall, and many other features of interest impressed me much. I left Durban with three other officials (two of whom were doctors), and in process of time we entered Delagoa Bay. Further on came the rising port of Beira, the natural port of Mashonaland, and likely to be a great place in time. Then we called at Inhambane—where the Copal comes from—and eventually Quilimane—where it may be said the cocoa-nuts come from, for there are quantities of the palm about that beautiful, red-tiled, gaily painted river-port. We trans-shipped again and sailed south for a day, when we reached Chindé, the port of B. Cent. Africa, on the Chindé river—one of the numerous mouths of the Zambesi, and the gate of a direct water-way to the Lakes. The Portuguese own Chindé, but the British Government has a small concession of wharfage on a 99 years' lease. It is a lamentable place, consisting of a sand-pit backed by the raggedest, nastiest bush imaginable. We spent six wretched days there, before the African Lakes' steamer came and carried us to the famous broad Zambesi proper, which at this point is very imposing and charming. The banks are lined with a dense and varied forest—trees of the Mangrove type predominating. Such tropical features as orchids, climbers, birds, butterflies, and strange animals, may have been there, but none of us saw them. A day's journey disgusted us with the river, for the forest thinned away into the distance and we were left with grass-lined banks (and dead grass at that), and for miles one saw nothing but the river and the glaring sun above, often through reeking smoke, pungent and unpleasant, from the incessant grass-fires, at this season raging all over the South and Central Regions. The monotony was broken by the vessel lodging every little while on a sand-bank, when the nigger crew had to get out and pull her off. At the Portuguese mission-station—Shupanga—we went ashore to visit Mrs. Livingstone's grave. After several days we struck into the Shiré, which wends away amongst hills in a north-easterly direction. Now the banks were clothed with luxuriant verdure, with hills in the background; the river ran swift and clear, and generally it was a glorious relief after the flat, ugly Zambesi country. The Shiré may justly be called

THE RIVER OF A THOUSAND ISLANDS.

They are thick in it. Beautiful, green, flowery spots, for the soil is rich and there is abundance of magnificent land. Cacao, spices, sugar, tobacco, and Liberian coffee should grow well there. As it is the banks are more interesting to the botanist, for there were many gay flowering-plants. A scandent shrub, which bore a wealth of broad, flaky masses of small scarlet flowers, reached up to the highest trees, and, blended with

foliage and sky-effects, reminded one of a Japanese picture. *Phoenix reclinata* was very much *en evidence* and also *Hyphæne*, of which there are frequently forests, till one wearied of its straight stem and big round head like a gigantic mop. Crocodiles are bigger and more numerous here than on the Zambesi. We counted eight large specimens on a bank one day. We blazed away at the brutes all the time, and I cannot help doubting but that travellers since must have noticed

A DELTA OF DEAD CROCS

at the junction of the Shiré and Zambesi. As for the Hippos, you fire point blank at their big, soft heads, which bob below momentarily, only to bob up again a few feet off and calmly wink at you. There were flocks of lovely birds, snow-white graceful egrets, fish-eagles, guinea-fowl, etc., and at times a gregarious bird (*Merops natalensis*), the size of a thrush, with all the colours of the rainbow (and I think one or two more) in his coat, that made the high banks, where they nest like martins, a glorious mass of colour. At frequent intervals there are picturesque villages, the huts built of reed and surrounded by banana and papaw.

“A smaller steamer brought us in two days to Chikwawa and to the end of our water journey. From thence we were carried in a kind of hammock called a *machila*, slung on poles of the native bamboo (*Oxytenanthera abyssinica*), to Blantyre, a distance of 40 miles. The road at once begins to ascend the hill, and the invigorating feeling as we mounted higher was very delightful after our long lowland travelling. It stretches away to the Lakes, and has many ramifications. The section to Zomba (about 100 miles) is an excellent one for bicycling. With 8 or 10 carriers a day's journey landed us at Blantyre, the commercial capital of the Protectorate, a straggling place amongst the hills. After a day's stay in Blantyre we proceeded *en route* for Zomba, 40 miles away, which we did in a four-muled cart.

ZOMBA

is the name of mountain-chain running E. and W. for a distance of 5 miles or so, the highest peak is about 6000 feet alt. The Government headquarters, dwellings, etc. occupy a S. aspect at the base on the banks of a lovely deep mountain-stream, about 3000 feet above sea-level. Looking southwards from Zomba, a vast plain stretches before one, dotted with hills of many sizes. The mornings here are always sweet and refreshing, heralded by the Zomba thrush (*Turdus zombensis*), whose short rippling notes resemble those of our own songster. Every day almost there is a breeze, and in the rains it often gets quite cool. In the dry season Zomba almost to a man goes up on the hills for the 'week-end' to camp and shoot buck, wild pig, and a kind of grouse. Your hardier spirits betake themselves to the plain to wage war with eland, kudu, zebra, leopard, and possible lions. When a 'sportsman' has of an evening imbibed some of the bad Scotch whisky which is to be had here and relates his feats of derring-do, 'When puir Sandy McTavish and I

opened that plantation yonder, at Chimbebwá's,' the tales one hears are fearsome!

“The native of these regions is a peculiar specimen of the human race. He excels in laziness and indifference to creature comforts, especially cleanliness. If he plunges into a stream at times, it is for a cooler. He has no ambition. He will go a 40-mile journey with a load of 50 lbs. on his head, and for food take only two or three cobs of maize, which he toasts on a fire; water is close by to quench his thirst, and he is quite content. He is to be envied in some respects.

“The climate is responsible for strange incongruities as regards plant-life; for instance, here in the Residency grounds at Zomba, *Allamanda violacea*, *Plumeria alba*, and Lawson's Cypress are quite happy side by side. Mangoes flourish exceedingly, but refuse to bear. Bananas and pineapples are quite at home. The Citrus family in the few places they have been grown are only a very partial success, whilst in Natal they thrive wondrously. The essentially tropical West-African forest-tree *Khaya senegalensis* reaches magnificent proportions by stream-sides, whilst the Blue Gum never looks happy. Fighting with tropical grasses, climbers, and what not, you see the dear old ‘Bracken.’ *Beaumontia grandiflora* luxuriates, whilst by a streamlet near at hand a buttercup, as near our own meadow flower as need be, is equally happy. A lot of Mauritius hemp is just ‘poling;’ *Bougainvillæas* are ‘rampagious;’ *Clerodendron Thompsoniæ*, Marechal Neil's rose, and *Cissus discolor* are fighting for priority on a small arch, and a few paces away an apple-tree looks as much the thing as it does at home, only it won't flower.”

MR. SAMUEL JUNOD (1896) writes:—“After working a short time in Belgium, I have obtained a place as artisan-missionary for a Swiss Society in the Gold Coast. I start in December [last]. We (my wife and I) are to found asylums for the fugitive slaves and those liberated by the troops. With their aid we are to grow all that can be grown. I should be glad if you would let me know what would most likely be useful in that country. It is from four to five days' march north of the land of the Ashantees. I know nothing concerning the climate, but I am taking with me Dr. Nicholl's book *Tropical Agriculture*, and I intend to get Dr. Murray's *How to live in Tropical Africa*. I very much like going abroad, and do so with courage, though the difficulties will be numerous, especially as we shall have to initiate everything. I am taking lessons in carpentering etc., so as to be enabled to build houses, etc. After the first year I think we will go ahead with the plantations.”

MR. LOUIS GENTIL, who was appointed in September last Director of Coffee and Cocoa Estates in Equatorville, Congo, after a year's service at Kew, writes:—“On the 20th of this month [Oct. 1897] we first sighted the Sierra Leone chain of hills. I was much impressed on nearing the

African coast with the different appearance it presented to that of the Canary Islands. This part of Africa is very beautiful, the vegetation reaching down to the coast, whilst in Grand Canary the most conspicuous features were the flat-roofed houses of the banana-cultivators and the hills of volcanic sterility. We anchored about a mile from the shore, and after being overhauled by a native doctor the ship was invaded by crowds of black men. About eighty were engaged by the captain to discharge the cargo. Others did their best to persuade the passengers to go ashore. I went with a young native of Sierra Leone who offered to pilot me through Freetown.

“One has queer impressions when first setting foot on the continent inhabited by our black brethren. Some of the natives were lying down lazily, others moving slowly along with big baskets or pots on their heads, whilst others were comfortably reclining in a hammock carried by four men. The roads and streets are not paved, but are covered with beautiful verdure, where flocks of little sheep feed. Some of the natives are dressed in the last European fashion (?), others in most ludicrous colours, and others again à la Monsieur Adam! I enquired at a bazaar where I should find the Botanic Garden, and was directed to a church which stood close to it. I entered and followed a splendid main path bordered with beds planted with Crotons, Acalyphas, Amaryllis, roses, Cannas, etc. A native was mowing the grass on the lawn with a machine. The Botanic Garden this, no doubt about it! I arrive at a fine house. Silence reigns everywhere. I call out ‘Mr. Willey’: no answer! I shout again more loudly, and am answered from the first landing by a native, who shows me up. I next find myself in a spacious room lighted by over a dozen large windows. Willey is there, in good health. What a splendid view from his house. He saw our ship coming into the harbour. I am obliged, whilst talking about Kew and its belongings, to bathe my poor head in order to cool it. I partake of a hearty lunch, and for the first time taste the unripe fruit of *Carica Papaya*, which in taste, colour, and appearance resemble vegetable marrow. I was surprised to find such a beautiful garden here. Such favourite garden plants as Dahlias, roses, Cannas, Zinnias, and Fuchsias are abundantly represented, as also are Musas, Coffeas, cocoa-nuts, papaws, Allamandas, Bougainvillæas, Russelias, Tecomas, Poinsettias, Lantanas, etc. I also saw several wonderful specimens of the ‘Cashew-nut’ (*Anacardium occidentale*), giving plenty of shade, of which latter Mr. Willey has taken advantage by establishing a fernery composed of native species. A few orchids were also established on the trees. I noticed another tree about 65 feet high of *Spathodea campanulata* covered with bright scarlet flowers. Other really remarkable trees were the ‘Rain Tree’ (*Pithecolobium Saman*), *Melia Azedarach*, *Adansonia digitata*, *Poinciana regia*, *Achras Sapota*, and *Artocarpus integrifolia*. A feature of special interest was the nursery, with its peculiar mode of shading, either by an interplantation of bananas or by a roof of dried palm-leaves about 3 feet from the ground. I there saw

many of the seeds obtained from Kew by Mr. Willey on his last visit germinating freely. I also saw many thousand plants of *Kickxia africana*, and at least 20,000 *Coffea liberica*. A beautiful sight is the Sierra Leone coffee (*Coffea stenophylla*), with its bushy appearance, small leaves, and pretty berries. I was shown a plant of *Manihot Glaziovii* sown about twenty months ago, now reaching the height of 20 feet.

"There were large holes 4 to 5 feet deep in the fine well-cared-for walks, caused by the recent heavy rains. Even the bridges built over the stream have suffered from the floods during the rainy season. It was a terribly hot day, and I perspired like a ship's stoker. How I envied the Sierra Leonesses in their nakedness washing white linen in the middle of the stream in the garden, and innocently exposing to our eyes the full beauty of their charms. Their skin is not black, but of a beautiful pale chocolate-brown colour. Willey accompanied me to the harbour, and we spent another hour on board ere saying good-bye.

"On Friday last at 2 P.M. we arrived at Banana, and anchored there until next day, when we proceeded to Boma, arriving there at 3 P.M. For the greater part of the two following days I was glad to lie down, for I was so tired and weak from the effects of the powerful sunshine. Next day I was introduced to the Governor. Both he and the Secretary are charming men. After subjecting me to a series of questions, they decided to give me the direction of the largest and healthiest of the Cocoa and Coffee estates in Equatorville, six or seven days' walk from Leopoldville. Beside my own boy, I had ten men to carry my luggage etc."

Mons. E. Laurent, who is Gentil's official chief, wrote of him:—"M. Gentil est venu passer deux jours avec moi. C'est un jeune homme exceptionnel, qui a su tirer un admirable parti de son séjour à Kew Gardens. Il rendra sûrement de grands services à l'État du Congo."

MR. W. H. JOHNSON, who is now acting Curator at Aburi, during the absence on leave of Mr. C. H. Humphries, writes:—"I landed at Accra on Feb. 9 last, after a pleasant voyage. I was very sorry to hear at Sierra Leone of poor Willey's death. I had intended visiting him, but was prevented owing to the steamer not stopping long enough. I stayed in Accra one night, proceeding to Aburi the following afternoon per hammock, arriving there at 10.45 P.M. Mr. Humphries spent the greater part of Friday and Saturday showing me round, and left on the Sunday morning. The garden certainly looks well considering the dry season they have passed through, not to mention the locusts, of which clouds were here when I arrived. Nothing appears to have come amiss to them for food—the cocoa-nut palms were simply stripped, whilst the lawn in front of the Sanatorium looked even worse than Kew Green after a Bank Holiday. However, their visit to the vegetable garden, as you may guess caused the most damage.

"A few days after Mr. Humphries left H.E. the Governor visited

Aburi. He expressed himself well pleased with the garden, and said he was agreeably surprised to find such a great improvement since his last visit. He stayed four days.

“Up to the present the curator has acted as caretaker of the Sanatorium, but I understand this arrangement is to be altered as soon as the new curator’s house is finished.

“I found an aroid in the bush the other day which I believe you have not at Kew. Those sent by Mr. Holland from Calabar are the nearest as far as I can remember. The flower appears before the leaf, reaching to the height of about 5 feet. I enclose a description and drawing of it. I have had fair health so far, and am perfectly satisfied with this trip. Everything is new and strange to me, and of course interesting.

“I hope to make a good collection of dried plants whilst here. You told me to look out for specimens for the Museum. If I preserved some of the coffee, cocoa, and cocoa-nut palm borers and beetles, would they be acceptable? I rather fancy they would be interesting; they certainly are more than that here.”

MR. ROBERT CAMERON, Curator of the Botanic Garden, Harvard University, U.S.A., writes:—“I am sorry I cannot tell you much about Westland. When last I heard of him he was working in Golden Gate Park, California. I am afraid he is not doing very well, or I should hear from him. Nor can I tell you much about Michael Barker, having lost track of him for the last six months. He has been rather unfortunate since he left Harvard. Robbins is still in Chester, Pa. He is what is here termed a ‘hussler’ (florist); I think he will do well in this business. You will be pleased to hear of N. Jonsson Rose’s success: he has just published a large book of 400 pages, with 200 illustrations, on ‘Lawns and Gardens.’ You would see a very favourable notice of it in *Garden and Forest*. I spent two days along with him a fortnight ago. He is Superintendent of Morning Side and River Side Parks in New York City. We together visited Bronx Park, and also the grounds for the new Botanic Garden. I was surprised to find many splendid specimens of American trees growing there. There is a great chance of making a splendid Botanic Garden, but very little has as yet been accomplished. I believe Mr. Henshaw, the present Curator of the New York Botanic Garden, was at Kew a short time ago, and he probably told you all about it. I visited Washington Botanic Garden this summer. The greenhouses there are pretty good—some large palms, cycads, etc.—but the grounds are not well kept. Canning is getting on well at Smith College.

“I will send you something for the Journal later, and will inform some of the other Kewites on this side the pond to do the same. I will also try to hunt up all the lost sheep and let you know about them.”

THE BLUE APRON.

What time Old Adam lost his place through Eve and cunning Lucifer,
 He made a garden of his own, and planted the first crucifer,
 What time he cleared the twitch away with labour long and arduous,
 And grappled with a Rumex or assailed a stubborn Carduus,
 He little dreamed in all his speculations on cosmogony,
 What talents and accomplishments would mark his latest progeny :
 To cope with competition, every year its getting needier
 The up-to-date young gardener must be a cyclopædia,
 The heir of all the ages is compelled to fill his cranium
 With knowledge full as cinders in the streets of Herculaneum :
 Commencing his apprenticeship with crocking pots and watering,
 He's shown the snug retiring bug and set to do the slaughtering ;
 He has to learn to force a peach, the treatment of Vitaceæ,
 The whims of Stephanotis and the wants of Orchidacææ,
 The humours of Bouvardia, the culture of Chrysanthemum,
 The soil and situation that will suit a Helianthemum,
 The needs of alpine plants that hail from mountains bleak and boreal,
 The requisites of every race from regions equatorial,
 The wants of winter Cucumbers, Pancratiums and Pine-apples,
 The way to make his orchard trees produce a crop of fine apples.
 Then he must learn his cropping, and exhibit an ability
 To fill the Kitchen Garden full of vigour and fertility.
 And after toiling five long years in service sound and dutiful,
 He comes at last to Royal Kew, to Kew the bright and beautiful,
 And here he's got to tax his brains (supposing that he's got any)
 Elucidating structural and systematic Botany :
 He learns his cells and tissues, all the wonders of Histology,
 And struggles with the processes and terms of Physiology ;
 He battles with the Phænogams from Trollius to Zamia,
 Then recklessly he plunges in the wilds of Cryptogamia ;
 And, finally, to consummate his efforts so laborious,
 He gets first-class certificates for knowledge meritorious.
 But just as turtle-soup is but the foretaste of the dinner yet,
 Compared with what he has to be, he's only a beginner yet ;
 To be the Perfect Gardener he must tax his brains intensely still,
 And knowledge gained already must be amplified in garden skill :
 For now-a-days his learning must be infinitely various,
 His stores of information must be truly multifarious.
 He should qualify in Literature, in Science and Philosophy,
 And be *au-fait* in Art, in Economics and Theosophy,
 He should compass theoretical and practical Geology,
 The range of Dinosauria and Palæophytology,
 The properties of alkaloids, the flora of Siberia,
 The origin of nitrogen, the action of bacteria ;

To garner facts from modern days to ages Neolithic,
 And in crucibles of Science to incinerate the mythical,
 Should be the aim alike of the philosopher and physicist,
 The botanising Kewite, and the cultivating Chiswickist !
 To be the Perfect Gardener he must gain all knowledge gainable,
 Including current prices and the discount that's attainable :
 In short, to meet the multiform requirements of modernity,
 He must be well up in everything in Time and in Eternity !
 For his mental recreation let him read his ancient history,
 Of Macedonian phalanx and Eleusinian Mystery,
 Of Memphis and Mycenæ and the Elamite metropolis,
 And the stories of fair Palmyra, the Queen of the Acropolis ;
 And it goes without the saying, he must be a good grammarian,
 If he misapplies his H's he'll be counted a barbarian ;
 He should ever aim to utilize his knowledge educational,
 To shine in good society with talents conversational,
 For men are apt to estimate your merit and capacity,
 By the style of your address and by the skill of your loquacity.
 And lastly, but not leastly, he with honied tongue must learn to woo,
 And win and wed a pretty girl, that's got a little money, too !

PERCY T. INGRAM.

TRAINING FOR INDIA.

THE following interesting suggestions for young gardeners preparing for employment in India are from Mr. G. MARSHALL WOODROW, F.L.S., Lecturer on Botany, College of Science, Poona, and author of that most useful work, *A Manual of Gardening for India*.

“In the following notes it must be premised that the young men at Kew are considered the best of their class ; that they are men prepared to meet and overcome difficulties, to suffer privations for a time in the hope of future rewards, aware that devotion to work and great mental activity are absolutely necessary, and that only the highest grades of their line of work are worth attaining. The exercise of those qualities would no doubt lead to success in any calling, but in no other profession is it more necessary for the attainment of a respectable position.

Some young men look to employment in India as an easy means of improving their pecuniary position, the impression being that life in the tropics is easy, wages high, duties and responsibilities nominal, varied occasionally by a tiger-hunt or a pig-sticking expedition. As a matter of fact, this is all moonshine.

For work in India, a thorough knowledge of the principles of horticulture is necessary. A man who possesses this is not so much at a loss in unwonted circumstances as one who has neglected such study and attended

only to the practice that is successful under local conditions. The fact that the conditions to which one may be accustomed are really local is apt to be overlooked. For example, the composition and properties of soils and manures, as given in the best of the recent agricultural books, is more important as a means of opening the mind for the reception of wider ideas, than the fact that a certain plant thrives better in peat than in loam. Except at great altitudes there is no peat in the tropics, and sharp sand is not practically procurable in some parts of India. In such matters the principles of cultivation come to our aid, and point to substitutes readily available.

Irrigation is an important part of our work in India: the quantity of water required for different crops, and the size and slope of canal or pipe necessary to carry a given quantity, with a given trend, in a given time, are problems of frequent occurrence.

The causes of and remedies for plant diseases are matters requiring attention, and the means and time required to carry out a particular operation—for example, to dig half an acre 1 foot in depth, or to carry 1000 cubic feet of gravel one mile.

Some skill in drawing is often of great value to the cultivator here. Highly finished drawing may be beyond the reach of most, but to make an outline drawing to scale is easy to those who begin to learn young, and the man who can make a rough drawing on a board with coloured chalks finds his work immensely easier than another without that accomplishment.

Surveying and levelling are not heavy subjects, and the use of the necessary instruments has come to me often in the course of my practice. I am reminded by a writer in your last Guild Journal, who describes Kew as he found it,—a town with three railway-stations, a theatre, etc.,—that my practice has not been a short one. Kew was very different when I knew it 30 years ago.

Some may consider the requirements much higher than the rewards justify, but in India all this is necessary to carry out work better than the native youths who are taught all those subjects at little cost to themselves, and Englishmen must be prepared to distance such competitors. Kew men have an immense advantage in having been trained in the manual part of their work, and in energy and honesty of purpose. Against this the native speaks his mother tongue, so that the workmen understand his instructions and carry them out to the letter. The result of this education is that men in our line who wish to keep to the front in India will in future need to work harder than their predecessors, and I am fully convinced that the qualities that will carry a man to the front in India do not differ from those that will succeed anywhere. My advice is,—Educate yourselves in the principles and science of your profession. There is little chance for the charlatan in India."

THE CRICKET CLUB.

THE season 1897 was remarkable for the number of wins scored by the K.G.C.C., only one of the twelve important matches played being lost, namely, that with the Frogmore Gardens Club. Both matches with the Kew Village Club were in our favour, notwithstanding the exceptional strength of the Village team. The highest score made against our side was 88 by the Village Club in the return match, when we made 122. The total number of runs made by our side in these twelve matches was 938 for the loss of 78 wickets, an average of over 12 runs per wicket. Our opponents made 692 runs for 96 wickets. The principal contributors with the bat were Messrs. Sands, Watford, E. Bass, Watson, Johnson, and Browning; and the most successful bowlers were Messrs. Martin and Sands.

Captain, W. WATSON.

Vice-Captain, A. WATFORD.

Secretary, E. BASS.

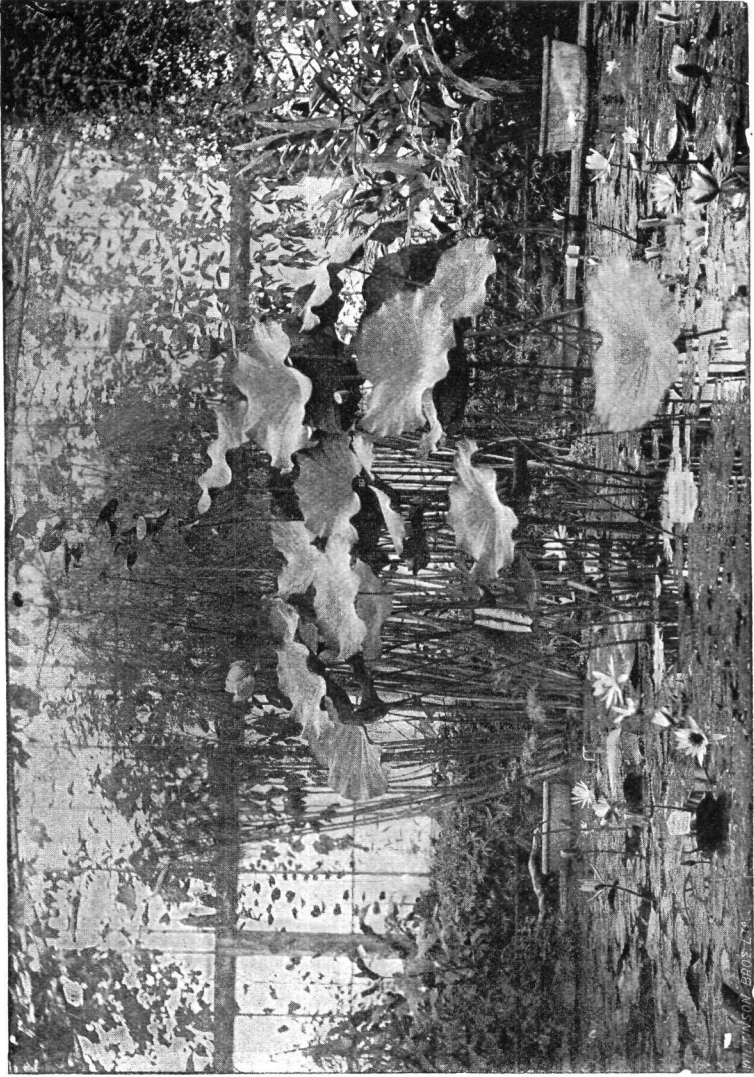
 PHOTOGRAPHIC VIEWS OF KEW.

A SERIES of photographic views of Kew has recently been prepared and published in the form of an album by Mrs. S. Goldney, under the title of "The Royal Gardens, Kew, in all Seasons of the Year." It contains 36 views of out-of-door effects and two of indoor features—the Victoria regia house and the Water-lily house. The selection of views is an admirable one, the photographs are clever little works of art, and their reproduction by the printer is highly praiseworthy. Mrs. Goldney has written an appropriate little poem for each month as represented by the pictures. As a souvenir of Kew this album supplies a want which has long been felt by many. It will also serve a useful purpose in affording to friends at a distance a good idea of some of the most pleasing features of the Gardens. Mrs. Goldney has kindly lent two of the illustrations for reproduction here (see pages 28 & 29). The book is published by Messrs. Dawbarn and Ward, 6 Farringdon Avenue, London, its price being 2s., by post 2s. 3d.



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MUTUAL IMPROVEMENT SOCIETY.

THE popularity of this Society with the members of the Garden staff may now be said to have reached its maximum. The meetings, as a rule, are so well attended that the Garden Library scarcely affords sitting room, whilst the papers are of such a character as to justify the desire expressed at the final meeting this year that they should be printed in pamphlet form for circulation among members and their friends. Unfortunately the cost of doing so proved beyond the means of the Society. Twenty-two essays and lectures were given, the attendance at each averaging over forty. The following is a copy of the Syllabus:—

Oct. 4,	1897.	Address on Horticultural Training.	Dr. Morris, C.M.G.
„ 14,	„	The Packing of Plants	Messrs. Watson & Crisp.
„ 18,	„	Horticulture in the United States.	Mr. E. Mische.
„ 25,	„	Species of Rosa	Mr. J. M. Abbott.
Nov. 1,	„	Ferns	Mr. W. Dyson.
„ 8,	„	Plant Life	Mr. W. Hales.
„ 15,	„	The Herbaceous Border	Mr. F. M. Mark.
„ 22,	„	Coniferae	Mr. E. H. Wilson.
„ 29,	„	British Botany	Mr. D. Tannock.
Dec. 6,	„	The Rock Garden	Mr. J. Jones.
„ 13,	„	Horticulture in France	Mr. A. Griessen.
„ 20,	„	South-African Plants	Mr. W. H. Johnson.
Jan. 3,	1898.	Soils	Mr. H. B. Lloyd.
„ 10,	„	Apples	Mr. W. E. Coxon.
„ 17,	„	Gardening on the Riviera	Mr. H. Thomas.
„ 24,	„	Border <i>v.</i> Pot-Culture, Indoors ..	Mr. W. Dallimore.
„ 31,	„	Seeds and Seedlings	Miss G. Cope.
Feb. 7,	„	Stove and Greenhouse Climbers ..	Mr. J. Coutts.
„ 14,	„	How Plants are Constructed.	Dr. Scott, F.R.S.
		(Lantern Lecture.)	
„ 21,	„	Orchidaceæ	Mr. R. A. Rolfe, A.L.S.
„ 28,	„	Water, its use in Horticulture	Mr. W. Leslie.
Mar. 7,	„	Insectivorous Plants	Mr. W. N. Sands.
„ 21,	„	Secretary's Report and Distribution of Prizes.	

The Prizes were presented:—One by Sir Joseph D. Hooker—*Lyell's Principles of Geology*, in 2 vols., and three by Mr. W. Robinson, F.L.S., Editor of *The Garden*—*The English Flower Garden*, *The Vegetable Garden* (Vilmorin), and *Parks and Gardens of Paris*. These were awarded:—

1st (The “Hooker Prize”), to Mr. Wilson for Essay on CONIFERÆ.

2nd (*English Flower Garden*), to Mr. Thomas for Essay on GARDENING ON THE RIVIERA.

3rd (*Vegetable Garden*), to Mr. Leslie for Essay on WATER, its use, &c.

The Discussion Prize (*Parks and Gardens of Paris*) was awarded by vote to Mr. D. Tannock.

Chairman, W. WATSON.

Secretary, W. F. GULLICK.

OPENING ADDRESS BY DR. MORRIS, C.M.G. ETC.

I NEED not say that it affords me great pleasure to meet the Members of the Society in this informal manner and afford what little help I can towards making these gatherings interesting and useful. Their value for the purpose of mutual effort in acquiring knowledge is fully recognised, and from what I know of your proceedings I can confidently recommend all to make a point of attending regularly and making the most of these winter evenings.

The training offered to young gardeners at Kew is of such a special character that, rightly utilised, it should fit them for positions of trust and usefulness beyond the reach of those who have not similar advantages. That this training is in great part successful is shown by the results. We meet in all parts of the Empire Kew men discharging important duties with credit to themselves and profit to the communities amongst whom they live. I have had frequent opportunities of observing such men, and I have been greatly impressed not only by the earnestness with which they devote themselves to their work, but also by the ever-pervading desire shown by them to keep up the prestige of Kew. This latter I am convinced is a strong bond uniting scattered members into a solid phalanx resolved to carry the Kew banner along the path of progress. Realising this I can the more confidently encourage those before me to-night to follow in the footsteps of their predecessors. The positions of usefulness and esteem occupied by them has not, however, been attained without hard study and constant effort. I should not be acting kindly by you, if I did not point out that in the absence of such effort it is useless in these days to hope for success of any kind.

During your stay at Kew you have numerous inducements placed within your reach to be studious and observant, while at the same time you are steadily occupied in the round of daily duty. Those who are thinking of going abroad require, if possible, a wider view of horticultural science even than those who stay at home. It is not sufficient only to know garden plants by name and to be acquainted with their general treatment under cultivation. A typical Kew man should go much deeper than this. Hence it is that lectures on botanical subjects are provided, that collecting and identifying wild plants are encouraged, and various other means placed within your reach for becoming what may be termed botanical gardeners, as distinct from mere cultivators.

With all this, however, it must not be forgotten that the first aim of Kew is to turn out thoroughly practical men. A gardener who is not competent practically is a fraud. But in addition to the practical side so closely associated with your work amongst the collections at Kew, you have a well-selected library and opportunities for making observations and accumulating notes on subjects that will prove of the greatest possible interest to you in after-life. The value of a well-filled note-book cannot be overestimated. In travels abroad, no less than in home work, the

habit of making notes on matters of a striking character is a valuable one. It not only assists the memory, but leads a man to acquire the faculty of being both methodical and exact. Before you can teach others, it is necessary to become efficient yourself. Here a knowledge of details and a systematic love of method is essential. Men who have succeeded in building up large fortunes in this country declare that their success has been in great part due to a thorough grasp of details. Not to despise such details, while at the same time keeping head and shoulders above them, are characteristics of a strong mind. Men of this stamp do not wait on influence or favour, but resolutely set to work and carve their own fortunes. The less you depend on others, and the more you realise that your fortune depends mainly on your own efforts, the happier you will be and the fewer will be your disappointments.

Next to proficiency in horticultural pursuits, which I regard as of the first importance, comes the question of personal character. This is quite distinct from mere smartness as handicraftsmen. It is a matter of great moment for young men to realise that personal character is a structure that has to be very gradually and often very painfully built up. Without it, success in the highest sense is impossible. The confidence, respect, and esteem of those in a superior rank to our own, and in a marked degree of our associates, can only be gained by the possession of qualities enabling us to lead useful and truly healthful lives. Young men do not usually attach much importance or give much thought to such matters. I take it, however, that among the advantages to be derived from your meetings here may be mentioned the development of personal character, while at the same time you have opportunities for the mutual exchange of ideas, the acquirement of habits of generous forbearance and of courteous intercourse. On a small scale you here reproduce some of the more serious duties of your future life. You prepare papers on gardening subjects; these are freely criticised by your fellows, and you thus gain valuable hints as to faults of manner and style, no less than as to statements of fact, that cannot fail to be of service. To be able to write brief and pithy reports on professional subjects is a valuable quality in a botanical gardener. Hence I would counsel you to avoid mere affectation, and endeavour to deal as clearly and as tersely as possible with your subject, not forgetting, however, to interest your audience by showing yourself interested. Then as to other matters, they can be left to be dealt with in the spirit of genial comradeship, which of all qualities should be the guiding rule of all your actions.

Speaking as a friend I would say a few words more. For instance, it is important to give some thought to personal appearance. We must remember that a slovenly-looking man is not likely to be a tidy or a methodical workman. We should always be careful to look our best, not in mere foppishness, but in such orderly habits, in person and dress, as bespeaks a spirit of self-respect. An awkward clumsy manner often proves a great obstacle in the way of those who otherwise are possessed of

excellent qualities. To be frank and agreeable in our intercourse with each other and to be modest and self-contained in society are calculated to win friendship, as many are influenced by first impressions, and manner is often taken as an expression of character. Then, to pursue this personal talk, I would venture to recommend very strongly a spirit of thriftiness. Without it many a young man entering life under the brightest auspices has come to grief. To live beyond one's means and to ape the manners of those above us are fatal mistakes. It often requires considerable courage to be consistently thrifty; but in the long run there is no doubt the thrifty man wins. In closing, I would wish, if it were possible, to keep before you in letters of gold such watchwords as: be thorough! be prompt! above all, cultivate absolute integrity in all relations of life!

THE LECTURES.

THE usual courses of lectures were given, with the following results:—

Systematic Botany. Lecturer, Mr. J. G. Baker, F.R.S.

22 certificates were granted. The highest number of marks were obtained by Miss G. Cope, 180; Mr. J. Coutts, 180; Mr. G. F. Tinley, 180; Mr. E. H. Wilson, 180.

Economic Botany. Lecturer, Mr. J. R. Jackson, A.L.S.

24 certificates were granted. The highest number of marks were obtained by Mr. E. H. Wilson, 314; Mr. W. J. Jennings, 309; Mr. J. E. T. Mische, 309.

Geographical Botany. Lecturer, Mr. N. E. Brown, A.L.S.

15 certificates were granted. The highest number of marks were obtained by Mr. G. F. Tinley, 100; Mr. H. H. Thomas, 94; Mr. T. W. Brown, 91.

Chemistry and Physics. Lecturer, Dr. J. F. Harris.

19 certificates were granted. The highest number of marks were obtained by Mr. W. Leslie, 347; Mr. G. F. Tinley, 324; Mr. W. N. Sands, 313.

British Botany Club. Secretary, Mr. D. Tannock.

16 certificates were granted.

Secretary's Report.—The first excursion took place on Thursday evening, April 22nd, and from that date until August excursions were made every Thursday. During the season, 12 evening and 4 afternoon excursions were made in the neighbourhood. The principal places visited were as follows:—

Kew to Richmond, along the Thames; Sheen Common; along the Brent; along the Thames to Teddington; Queen's Cottage Grounds; and Barnes Common.

The afternoon excursions were:—

July 1st. Staines to Windsor. Conductor, Mr. S. A. Skan.—The weather

was glorious, and altogether a most enjoyable and profitable afternoon was spent. 56 species not previously collected were found.

July 8th. Redhill and Reigate. Conductor, Mr. N. E. Brown.—The club was fortunate in enjoying the company and hospitality of Dr. Bossy, who obtained permission for the party to botanize in Gatton Park. This proved the most successful ramble of the season, 65 additional species being collected.

July 15th. Epping Forest. Conductor, Dr. Stapf.—The conductor's knowledge of the forest contributed largely to making the trip both interesting and profitable. 35 species not previously collected were found.

July 22nd. Wimbledon Common. Conductor, Mr. J. G. Baker.—This, like the former excursions, was a decided success for, besides many grasses, 10 species of *Rubus* collected were named by Mr. Baker.

The interest and enthusiasm in collecting were maintained throughout the season, and, considering that some of the members were attending and writing up four lectures a week, this was very satisfactory.

Altogether, I think the work done by the Club has been excellent, and I am sure the members feel very grateful to the various members of the Herbarium and Garden staff who acted as conductors or otherwise assisted us.

The number of collections was the largest yet made. As in previous years, excellent mounting-paper was obtained from Messrs. Douglas & Gilson, Dorset Buildings, Salisbury Square, Fleet Street, E.C., at a cost of 23s. per ream. Copies of the London Catalogue of British Plants were obtained from the publishers, Messrs. G. Bell & Sons, 4 York Street, Covent Garden. Labels of an approved pattern were obtained from Mr. J. Bissley, 414 High Road, Chiswick, at a cost of 2s. 6d. per 1000. The use of the Iron Room for drying specimens was again permitted by the Director, and proved advantageous to members and a relief to landladies.

Messrs. Nicholson and Irving, who examined the collections, reported upon them as follows:—The collections have been examined by us, and we find that in each case a certificate has been earned. The general run of the specimens is better than in previous years; the naming also has improved. Altogether, the Club is to be congratulated on its success. The prizes were awarded as follows:—

- 1st. *Bentham's British Flora* (given by Dr. Morris),
to Mr. T. Nelson for a collection of 590 specimens.
 - 2nd. *Hooker's Student's Flora* (given by Dr. Morris),
to Mr. W. H. Johnson for a collection of 550 specimens.
 - 3rd. *Hooker's Student's Flora* (given by Mr. Nicholson),
to Mr. R. C. Gaut for a collection of 523 specimens.
-

WEDDING BELLS.

Mr. G. H. Cave	to Miss Kate Bayliss	at Calcutta	on Feb. , 1898.
Mr. Henry J. Davies	„ Miss E. Nicholas	„ Calcutta	„ Jan. 20, 1893.
Mr. W. B. French	„ Miss M. Barwick	„ Kew	„ 1896.
Mr. S. Junod	„ Miss	„ Geneva	„ 1897.
Mr. G. Lamb	„ Miss H. M. Pettett	„ Cambridge	„ Aug. 21, 1897.
Mr. G. B. Mallett	„ Miss H. Franklin	„ Ipswich	„ July 2, 1897.
Mr. T. H. Martin	„ Miss A. Davies	„ Brentford	„ April 23, 1898.
Mr. Henry Powell	„ Miss Amery	„ St. Vincent, W.I.	„ Aug. 17, 1897.
Mr. W. J. Ruse	„ Miss Amy Tresidder	„ Falmouth	„ Jan. 26, 1898
Mr. W. Walters	„ Miss A. Foster	„ Forest Gate	„ Oct. 24, 1897.
Mr. Harry Williams	„ Miss Eleanor Sara	„ Redruth	„ Jan. 20, 1898.

IN MEMORIAM.

MR. WILLIAM SCOTT, F.L.S.

WE regret to have to record the death of this distinguished Kewite, which occurred somewhat suddenly on October 3, 1897, at his home in Stirling, about a fortnight after his arrival on leave from Mauritius, where he had served sixteen years without a break. He came home in the best of health and spirits, but caught cold on Ben Nevis and died after a short illness.

Mr. Scott was born in Longmay, Aberdeenshire, in 1859. He worked in several private gardens and Messrs. Dickson & Co.'s nursery in Edinburgh before entering Kew, and after a course of training there he was appointed, in 1881, Assistant Director of Forests and Gardens in Mauritius. On the retirement of Mr. Horne in 1893 he was appointed Director. He entered upon his charge under singularly depressing circumstances, as his first work was to restore the havoc wrought by the hurricane experienced in Mauritius in 1893, which had nearly destroyed one of the most attractive gardens in the Tropics. By dint of great energy and zeal he had accomplished this work, and left his department in excellent order.

He had charge of three gardens, and also the Government Forests and Lands, many thousand of acres in extent. His staff numbered about 400. He continued with great zeal the policy of his predecessor in planting forests of gums, Casuarinas, pine, teak, satinwood, rosewood, rubbers, etc., and these forests are now of great value as a source of timber for building purposes etc. He also took a keen interest in the sugar industry of Mauritius. About six years ago Mr. Scott was commissioned by the Government to proceed to the Seychelle Islands to advise as to the formation of a botanic garden there. He was a man of genial qualities, and was as much esteemed socially as he was admired and respected professionally.

On leaving Mauritius he was presented with an address of thanks and good wishes by his staff, who, whilst expressing their regret at

his departure, hoped he would have a good time and a safe return to Mauritius. His death will be heard of with great regret by all who knew him. We are indebted to Mr. John Horne, F.L.S., for the above particulars and the photograph of Mr. Scott.

MR. FREDERICK ENOS WILLEY.

By the untimely death of Mr. Willey, Curator of the Botanic Station at Sierra Leone, colonial enterprise has lost an exceptionally good man, and Kewites have lost one of the best of their younger brethren. Ever since his entry into Kew in June 1892 Mr. Willey had shown the right spirit. A keen plantsman, with a botanical leaning, industrious both at garden work and in the library, an enthusiastic member of the Mutual Improvement Society and Guild, and a frequent contributor of interesting notes for the *Journal*, he might justly be described as an exemplary Kew man. He is the fourth Kewite that has gone under within the last eight years whilst endeavouring to develop cultural industries on the West Coast of Africa, where it would seem, the climate is too much for the average Englishman.

Mr. Willey died of blackwater fever on January 19, two or three days after returning from a tour of inspection of agriculture in the interior. The Governor, Sir Frederic Cardew, K.C.M.G., in reporting his death to the Director, expressed his regret "on personal as well as public grounds;" whilst to the Colonial Secretary he wrote:—"I cannot speak too highly of the services which Mr. Willey has rendered to this Colony, not only as regards the Botanical Gardens, the creation of which is due entirely to his skill, ability, and energy, but also in promoting an interest in Agriculture and Gardening on the part of the community, and I fear that he met with his death in the furtherance of this end, for at the time he contracted the fever he was engaged in inspecting farms in order that prizes might be awarded for the best cultivated ones at the approaching Agricultural Exhibition. He was a conscientious and good officer and devoted to his work."

The Director wrote:—"I have watched the progress of Mr. Willey's work with very close attention, and have been able to form an estimate of its efficiency by the private reports of persons who have visited his department. There can be no doubt that the Colony has lost a very valuable and efficient officer, whose life has been sacrificed to the zeal with which he performed his duties."

Mr. Willey was born in Exeter in 1871. After seven years' training in private gardens in Devon and Dorset, he entered Kew in 1892 at the age of 21. In 1893 he was appointed *locum tenens* in the Botanic Gardens, Accra, during the late Mr. Crowther's absence on leave and in the West Indies (*Journal*, 1894, p. 21). He returned to Kew, and in March 1896 he was appointed Curator of the Botanic Station at Sierra Leone (*Journal*, 1896, p. 15). A plan of this Station, together with

several articles dealing with its development and work were published in the *Kew Bulletin* for October 1897. Mr. Willey visited England on leave last summer, and devoted July and August to a course of study of economic subjects at Kew. He married in 1895, but had no family.

MR. NATHANIEL CANTLEY.

It is with pleasure I write a few lines to perpetuate the memory of the late Mr. Cantley, who at the time of his death held the position of Superintendent of Gardens and Forests at Singapore, and who died as far back as the early part of 1888. I find he was apprenticed to the Trinity Nursery, Edinburgh, in 1862, and entered Kew in 1869, leaving three years later to take up the appointment of Assistant Director of Gardens and Forests at Mauritius, where his work was thoroughly appreciated. This led to his appointment as head of the Gardens and Forest Department in the Straits Settlements in 1880.

It was my privilege and pleasure to work with him for about seven years, and daily association with him commanded respect and admiration. Looking back on his life as a whole, his good qualities, both professionally and socially, stand out in a very prominent degree. His untiring energy and his large and comprehensive grasp of the duties of his profession were strikingly displayed in his organization of the Forest Department in these Settlements, and to which I paid a tribute in the last Annual Report on the Forest Department, on which occasion I had to review its work. It would be too long to go into the details of his work in connection with Forestry here, suffice it to say that he established a reputation any one might be proud of. In this connection it is melancholy to think, however, that the fatigue entailed in inspecting the outlying jungles, all of which had to be done on foot, tended to enfeeble a frame which had already been debilitated by the malarial fever of Mauritius.

His great energy made itself felt in other departments of his charge—notably in the establishment of an Economic Garden, which has now become larger than the Botanic Garden proper; but, alas! death came all too soon and cut short a career which had already made its mark, and which undoubtedly would have added fresh proofs of distinction, and been an example at once the admiration of all Kewites and as showing the value of those principles we have all imbibed at Kew.

He died in 1888 whilst on a voyage to New Zealand, whither he had been ordered by his doctor in the hope that he would regain his health by a sojourn there. His widow and children are living in New Zealand.—
WALTER FOX, Singapore.

We are indebted to Mr. John Horne, late of Mauritius, for the photograph here reproduced. It is dated 1876.

MR. JAMES C. NIVEN.

Although it is seventeen years since James Niven died, the position he attained in botanic-horticulture was such as to call for his inclusion in our

“gallery” of past distinguished Kewites. He was the son of Ninian Niven, Curator of the Botanic Garden, Glasnevin, and was born in 1828. When his father left Glasnevin and set up as a landscape gardener, he was succeeded by Dr. Moore, father of the present Keeper of the Glasnevin Garden, and under whose tuition the young Niven was placed. He entered Kew in 1846, where he soon won the position of foreman in the Herbaceous and Alpine department, and afterwards that of Assistant Curator. He drew up a catalogue of the herbaceous and alpine plants grown at Kew, which was printed in 1853; it enumerated nearly 5000 species. In the same year he accepted the Curatorship of the Botanic Garden at Hull, a position which he held until his death, which occurred in 1881. He succeeded in making the Hull Garden famous for its collection of hardy plants. He also distinguished himself as a landscape gardener, as a lecturer on botanical and horticultural subjects, and was a frequent contributor to the horticultural press. He was editor of the last edition of *Maunder's Botanic Garden*. A more detailed account of his career was published in *The Garden*, vol. xx., which was dedicated to his memory by Mr. Robinson.

MR. WILLIAM FOWLER.

The following notice of the death of Mr. Fowler, late Superintendent of Clifton Park, Baltimore, appeared in a New York paper in August last:— In the death of William Fowler the craft loses a good man and thorough gardener. Born December 19, 1822, at Kelvin Grove, Glasgow, he served his apprenticeship in the Botanic Gardens of that town under Sir William J. Hooker. He afterwards entered Kew, leaving again in 1848, and for some years afterwards he “wandered about the world.” When in Tasmania he assisted Mr. R. Gunn as collector for the Kew Herbarium. From Australia he came to Baltimore, and was engaged by the late John Hopkins upon the Clifton Estate, where he remained for forty years. Many rare trees and shrubs were planted by him. He took a special interest in Acacias, Eucalypti, and other Australian plants; Conifers were also favourites with him, and he formed a fine collection of them at Clifton. Many horticulturists attended his funeral, which took place on Monday, July 26.

A communication from Mr. Fowler was published in the *Journal* for 1896, p. 17.

MR. BENJAMIN WARRELL, for many years stoker in the Royal Gardens, and who left about four years ago, died at Brentford in February last from influenza. He will be remembered as one of the minor poets, having won a local reputation as a rhymster and reciter. He also won notoriety by his birthday letters to Mr. Gladstone, which were specially noticed in the press.

GARDENERS.

<i>Name.</i>	<i>Entered Kew.</i>	<i>Previous Situation.</i>
Arden, Stanley	May 1898..	Rochford's Nurseries, Broxbourne.
Arthur, Alec	Jan. 1898..	Meldrum House, Aberdeenshire.
Astley, James	Nov. 1897..	Alderbrook Park, Guildford.
Baggesen, Niels	Apr. 1898..	Laing & Sons' Nurseries, Forest Hill.
Bass, Thomas	Apr. 1892..	Trained at Kew.
Bogula, Otto	Mar. 1898..	Mt. Holyoak College, S. Hadley, Mass.
Bolt, Philip	June 1896..	Worsley Hall, Manchester.
Brown, Thomas W.	Nov. 1896..	Sunderland Winter Gardens.
Cavanagh, Bernard	May 1898..	Lower Grove, Roehampton.
Coutts, John	Oct. 1896..	Grantully Castle, Perthshire.
Coxon, W. E.	Oct. 1896..	Glewston Court, Ross.
Davies, Cecil	Mar. 1897..	Clibran's Nurseries, Manchester.
Gill, Norman	Apr. 1898..	Low & Co's. Nurseries, Clapton.
Girdham, Charles H.	Apr. 1897..	Norton Conyers, Ripon.
Godseff, Leo Gordon	May 1898..	Croux et Fils' Nurseries, Châtenay, Seine, France.
Gossweiler, John	Sept. 1897..	Hyde Park.
Gresson, Robt. E.	Jan. 1897..	Glasnevin Bot. Gardens.
Grindley, William	June 1896..	Brogynnton, Oswestry.
Gullick, William F.	Mar. 1896..	Halton, Tring.
Hackett, Walter	Sept. 1897..	Birmingham Bot. Gardens.
Hemsley, Oliver T.	Sept. 1893..	Trained at Kew.
Jennings, Wm. J.	Sept. 1896..	Mount Martin, Blackpool.
Johnson, Wm. H.	Apr. 1896..	Hatfield House, Hatfield.
Jordan, Albert John	May 1898..	Forbes House, Ham.
Kemp, Ernest	July 1896..	Albury Park, Guildford.
Leslie, William	May 1897..	The Grove, Dumfries.
Leveque, L. Jean	Jan. 1898..	Jardin des Plantes, Paris.
Luja, Edward	Nov. 1897..	Laing & Sons' Nurseries, Forest Hill.
Mackay, John	May 1897..	St. Nicholas House, Scarborough.
Marks, John T.	Aug. 1897..	Wakefield Lodge, Northamptonshire.
Mills, George	Apr. 1897..	Bayham Abbey, Kent.
Nelson, Thomas	May 1896..	Howick Hall, Northumberland.
Sands, Wm. N.	Mar. 1897..	R. H. S. Gardens, Chiswick.
Thomas, Harry H.	Apr. 1897..	Royal Gardens, Windsor.
Tinley, George F.	Apr. 1897..	R. H. S. Gardens, Chiswick.
Trollope, Lewis	May 1898..	Highfield, Trowbridge, Wilts.
Wilkins, William	June 1896..	West Cliff House, Ramsgate.
Wilson, E. H.	Jan. 1897..	Birmingham Bot. Gardens.

WOMEN GARDENERS.

Cope, Gertrude	Jan. 1897..	Swanley Hort. College.
Hutchins, Alice	See SUB-FOREMEN.	
Morland, Eleanor	Apr. 1897..	Cheal & Sons' Nursery, Crawley.

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>
Aggett, William	June 1888	70 St. James's Road, Bermondsey, S.E.
Aherne, Michael	Aug. 1866.	
Aikman, Alexander	Dec. 1895	James Veitch & Sons, Ltd., Chelsea.
Aldridge, A.	About 1850	N., Petersham, Surrey.
Allan, William	Aug. 1851	H. G., Brownlow House, Lurgan.
Allen, Robert	Oct. 1878.	
Appleby, George	April 1866	Went to St. Helena.
Archer, Sydney	Mar. 1895.	
Arksey, Thomas	Dec. 1870	Went to United States.
Armstrong, James	Mar. 1893	Dobbie & Co., Rothesay, N.B.
Armstrong, Robert	Oct. 1897	Went to S. Africa.
Armstrong, Thomas	Aug. 1850	N., Moorville, Carlisle.
Arnold, George	Oct. 1894	F., Heywood, Ballinakill, Queen's Co.
*Ashton, Frank	May 1885	Lewis & Co., Southgate.
Attenborough, F.	Feb. 1896	c/o J. H. Warren, Esq., Hoosick Falls, New York.
Auton, William J.	Feb. 1897	Ferrières Gardens, Seine-et-Marne, France.
Avins, Charles W.	Oct. 1894	J. Veitch & Sons, Ltd., Chelsea.
Bahr, Halfdan	Oct. 1883	Southal Colony, Guma Duar, Assam.
Bailey, Thomas	Sept. 1892	Ravenscourt Park, W.
Baker, William	Dec. 1887	Curator, Bot. Gardens, Oxford.
Barham, William	Sept. 1856.	
Barker, Michael	Mar. 1884	J. Lewis Childs, Floral Park, N. Y., U.S.A
Barker, Robert	Mar. 1858.	
Barnes, Richard	Mar. 1871	Curator, Public Gardens, Saltburn-by-Sea.
Barrie, George	June 1878.	
Bartlett, A. C.	May 1898	Finsbury Park, N.
Bartley, Henry	April 1871.	
Barton, Robert	June 1890.	F., Woolmer Hill, Shottermill, Haslemere.
Batchelor, William	April 1859.	
Bates, Frederick	Oct. 1874	H. G., Calke Abbey, Derbyshire.
Batters, Frederick H.	Feb. 1891	F., Holker Hall, Lancashire.
Baxter, Robert S.	Mar. 1874	N., Oxford.
Bean, George J.	June 1896	Supt., Doornkop Plantations, Indwe, Cape Colony.
Beaucham, William	April 1870.	
Beck, Joseph	Oct. 1870	Supt., State Gardens, Morvi, India.
*Behmick, Eric	July 1894	F., Bot. Gardens, Berlin.
Benbow, Joseph	Sept. 1884	H. G., Abbotsbury Castle, Dorset.
Bennett, William H.	May 1880	H. G., Menabilly, Par, Cornwall.
Benzon, Josef von	June 1885	(Temp.) Salzwedel, Altmark, Germany.
Berryman, Charles	May 1897	B. S. Williams' Nursery, Holloway.
Bevan, Henry	April 1888	Went to Australia.
Bischoff, William	July 1850	Germany.
Blackman, Walter	April 1874.	
Bleil, Frederick	May 1885	Germany.
Bliss, Daniel	Nov. 1895	Dulwich Park, S.E.
Bliss, J.	Aug. 1891	H.M. Office of Works, 12 Whitehall Place.
Bolt, Philip	Oct. 1874	H. G., Overhall, Winsford.
Bond, William	June 1876	H. G., The Cottage, Abbey Wood, Kent.
Boorman, John	Aug. 1885	Botanic Gardens, Sydney, N.S.W.
Bouckenoghe, Val.	Sept. 1892	N. Société Horticole, 19 Rue Carton, Ypres, Flanders.

† Abbreviations: H. G.=Head Gardener; F.=Foreman; N.=Nurseryman; M. G.=Market Gardener.