

THE ASSISTANT DIRECTOR.

DANIEL MORRIS, C.M.G., D.Sc., M.A., F.L.S., was appointed Assistant Director of the Royal Gardens in May, 1886. He was born in Loughor, Glamorgan, fifty-two years ago, and was educated at Cheltenham and the Royal School of Mines, London. He graduated at Trinity College, Dublin, in 1876, when he took first-class honours (gold-medallist) in Natural Science. Recently he qualified before the Board of Examiners and was admitted to the degree of Doctor of Science of that University. In 1877 he was appointed Assistant to Dr. Thwaites in the Botanical Gardens, Ceylon, where he paid special attention to the Coffee disease (*Hemileia vastatrix*), which at that time threatened to, and eventually did, destroy the coffee industry in that island. He was appointed in 1879 Director of Public Gardens and Plantations in Jamaica, where, until he came to Kew, he was prominently identified with the movement, initiated and largely assisted by Kew, to develop the economic resources of the West Indies. In 1883 he read a valuable paper on "Planting Enterprise in the West Indies," which was afterwards presented to Parliament.

In 1890, on the recommendation of the Director, the Home Government spared Dr. Morris's services for a botanical mission to the West Indies to enquire into the management and organization of some of the botanical gardens and stations in that part of the world, with the view of increasing their usefulness and efficiency to those interested in plant products. His report was published in the *Kew Bulletin* for May and June, 1891.

In 1893 Dr. Morris received the distinction of C.M.G. in recognition of scientific and economic services rendered to Her Majesty's Possessions.

Dr. Morris is the author of a useful handbook on the 'Colony of British Honduras,' and of numerous pamphlets and papers relating to the distribution and cultivation of economic plants. He has also prepared numerous papers on purely botanical subjects, two of the most recent being on the "Germination of the Seeds of the Sugar Cane" and "Forked and Branched Palms."

Last winter Dr. Morris paid an unofficial visit to the Bahamas, where he gave a series of lectures on the best means of making the most of the various resources of the islands. He also gave a lecture in New York on the "Rise and Progress of the Royal Gardens, Kew," and was entertained at dinner by the members of the Torrey Botanical Club.

Dr. Morris has always taken a sympathetic interest in Kew men, both at home and in "Greater Britain." The substance of a lecture on Colonial work, which he gave before the Mutual Improvement Society last year, will be found at p. 24.

A Balance-sheet for the year 1895-96 is appended :—

<i>Balance-Sheet, 1895-96.</i>		<i>Dr.</i>	<i>Cr.</i>
	<i>£ s. d.</i>		<i>£ s. d.</i>
Balance from 1894-95	6 6 9	Printing etc., Journal.....	27 7 0
Life Subscriptions	7 0 0	Postage, Stationery, etc. ...	2 0 1½
Subscriptions and Adver- } tisements..... }	28 7 6	Journals in hand	8 4 0
Donations :		Balance	18 13 1½
J. W. Thomson. £5 5			
J. Muir..... 1 1	6 6 0		
Journals in hand :			
32 of 1893	£1 12		
67 of 1894	3 7		
65 of 1895	3 5		
	8 4 0		
	<u>£56 4 3</u>		<u>£56 4 3</u>

PROCEEDINGS.

General Meeting, Feb. 27, 1896.

The Meeting was held in the Kew Gymnasium, which afforded better accommodation than the Garden Library. There were sixty-four members present.

The President, Mr. Nicholson, moved the adoption of the Report. He read the following letter from the Director, Mr. Thiselton-Dyer, C.M.G., C.I.E., F.R.S., etc. :—

“DEAR MR. NICHOLSON,

I understand that the Kew Guild holds its Annual Meeting to-night. I am glad to take the opportunity of congratulating it, through you, on the steady and useful progress which it has made. Like all institutions which are worth anything, it has advanced quietly from a comparatively modest beginning, and without any effort to bring it into unnecessary notoriety.

“For my part, I cannot doubt that it is a very useful institution, and is likely to become more so. What every one really wants in life is sympathy in the vocation to which each has devoted himself. Such sympathy is not merely an encouragement but a stimulus; it sweetens labour and excites exertion. Men go out from Kew to all parts of the world in private and public employ. To still keep in some degree in touch with those with whom they were once associated and with Kew, must often diminish their natural sense of isolation. And Kew itself derives, I am sure, some benefit from your organization. If Kew is

proud, as it is, of its sons, it is itself bound to maintain in their eyes its own high standard.

“But beyond this, I think there is another respect in which the Guild is a valuable institution. The English race is unique in its willingness to seek its fortunes in the most distant countries and under the most varied conditions. But every thoughtful man must realize the importance of maintaining in every way the ties which bind the race together wherever the lot of its individual members may be cast. In so far as the Guild aids in keeping in touch with one another those who have passed through Kew, it renders to the community at large, as well as to them, a substantial service.

“Pray, then, give the Guild my affectionate greetings on its annual meeting, and all good wishes for its continued prosperity.”

Letters were also read from Mr. Burbidge, Mr. Goëmans, and other members of the Guild.

The President congratulated the Guild on its safe condition and on the good impression it had produced in the horticultural world. He endorsed the Director's view that it had added to the prestige of the establishment and to the status of Kewites everywhere. He urged members in distant countries to avail themselves of the convenience now offered in the life subscription of one pound. He also commented on the negligence or indifference of certain members who continued to receive the Journal but omitted to pay their subscriptions. Members were urged to keep the Secretary informed of all changes of address or position. The late Curator had collected an album of portraits of Kewites who during his term of office had gone from Kew to important posts in the Colonies, India, etc., and the President hoped to secure this album for the Guild.

Mr. C. H. Curtis (1892) seconded. He thought the Committee deserved praise for the satisfactory conduct of the business of the Guild. He hoped no attempt would be made to accumulate a large balance with the Treasurer, recommending that any excess beyond what was needed for actual safety should be expended upon the Journal, by enlarging it and adding more illustrations. He thought the balance-sheet might give more details as to the exact source of the income.

Mr. J. Gregory (1866) said he had a large collection of photographs of Kew scenery and plants, taken by him during the past twenty years, and he would be pleased to place any of them at the disposal of the Guild. He had also a collection of lantern slides prepared from these photographs which he would lend to members anywhere who desired to use them for lectures, etc.

Mr. Dallimore was glad to see many of the gaps in the first directory now filled, and asked why some appointments of interest were not recorded in the last number of the Journal.

The President said it was the intention of the Committee to spend as much as could be afforded in making the Journal interesting and attractive.

He thanked Mr. Gregory for his liberal offer, and hoped it would be possible for the editor to turn it to account.

The Report was then unanimously adopted.

Mr. Goldring moved that Mr. W. Botting Hemsley, F.R.S., be elected Vice-President of the Guild. Mr. Hemsley had already done much towards making the *Journal* a success, his contributions to each number having been most interesting. His rise from the position of a young gardener at Kew to his present high position in science ought to encourage young men in their efforts to make the utmost of the many advantages offered by employment at Kew.

Mr. W. H. Ferguson (1862) said he had much pleasure in seconding Mr. Goldring's proposition, as he had been associated with Mr. Hemsley when a young gardener at Kew, and had watched his career with much interest. Kew had always helped the studious and industrious among her sons. What Mr. Hemsley had accomplished was not beyond the reach of at least some of the men who were at Kew now. Where one good man was needed thirty years ago, six were needed now. The Kew-trained man ought to go further and rise higher in his profession than one who had not enjoyed its advantages.

Mr. Hemsley was unanimously elected.

Mr. R. Derry (1883) said the *Journal* had been of the greatest interest to him when in Malacca, and he should look forward to it annually in his new home in Perak. He hoped to be able to send an account of some of his experiences in the East for publication, if the Committee thought them worth printing.

Mr. Watson said Mr. Derry's contributions would no doubt be "good copy." He hoped members would not forget that the *Journal* was a most convenient medium for the communication of interesting information to Kewites everywhere. Its pages ought to be filled with items of news from members in all parts of the world. Some members who could contribute appeared to be too modest—or was it laziness? If every Kewite would write something, even a few lines, each year about himself and his surroundings, the Committee would be delighted.

The whole of the Officers for the past year were re-elected, Mr. W. Dyson replacing Mr. R. J. Morris.

Votes of thanks to the Committee and to the Chairman closed the proceedings.

LIFE MEMBERS.

Mr. W. J. Bean.	Mr. R. W. Milne.
„ W. Dallimore.	„ G. Nicholson.
„ R. Derry.	„ C. Patin.
„ W. H. Ferguson.	„ W. W. Pettigrew.
„ G. Gaterell.	„ G. Stanton.
„ H. J. Goëmans.	„ T. Turton.
„ W. Goldring.	„ W. Watson.
„ W. B. Hemsley.	„ J. R. Wigman.
„ J. W. Mathews.	„ F. Willey.

NOTES, CORRESPONDENCE, ETC.

VISITORS DURING THE YEAR 1895.—The number of persons who visited the Royal Gardens during the year 1895 was 1,407,369. The highest number on one day was 83,500 on June 3rd (Whit Monday).

HAND-LIST OF FERNS AND FERN ALLIES (price 6*d.*).—This is a list of the whole of the Ferns, Selaginellas, etc., cultivated in the Royal Gardens. It comprises 1116 species and varieties of Ferns and 97 of fern allies. This is exclusive of British ferns, of which 586 varieties are enumerated. Fifty years ago John Smith I. drew up a list of the collection, which was published in an Appendix to the 'Botanical Magazine' in 1846. The number then amounted to 378 species.

HAND-LIST OF HARDY HERBACEOUS PLANTS (price 1*s.*).—This is a list of the hardy herbaceous plants cultivated in the Royal Gardens. The total number of these, exclusive of Cryptogams, is approximately 6000, including about 1000 well-marked varieties.

HAND-LIST OF ORCHIDS (price 6*d.*).—This is a list of the Orchids cultivated in the Royal Gardens. It enumerates 200 genera and 1800 species (including about 50 garden hybrids), probably the largest collection of living orchids ever got together in one establishment.

HAND-LIST OF CONIFERÆ (price 3*d.*).—This is a list of all the Conifers grown in the Royal Gardens out-of-doors and under glass. It comprises 227 species, with 340 varieties, belonging to 37 genera. The concluding part of the list of hardy trees and shrubs is rapidly approaching completion.

GREAT FROST OF 1895.—Some notes on the injury done to plants at Kew by the severe and protracted frost experienced last year were published in the *Bulletin* for January of this year. They are chiefly noteworthy as showing how many plants supposed to be tender proved to be quite hardy, and on the other hand how many which were reputedly hardy were injured or killed. Thus, whilst the common Ling, *Calluna vulgaris*, and several of the British Heaths were either killed or injured, *Azalea indica* from Japan did not suffer.

PALM HOUSE TERRACE.—The condition of the raised flat expanse immediately surrounding the great Palm House has long been felt to be unsatisfactory and unworthy of this fine building. It had been covered with rough gravel which was unpleasant to walk upon and hot and arid to the eye in summer. A defined and kept gravel walk has now been made connecting the different steps and entrances, and the rest of the space has been laid down in turf (which it may be interesting to record

has been mostly brought from Whitton Park). The surface of this is unbroken except by a few bold beds of evergreen shrubs or herbaceous perennials.

THE LAKE in the Royal Gardens is an entirely artificial creation. It was commenced about 40 years ago by the late Sir William Hooker, the then Director, who had nothing more than an old gravel pit to work upon. It was further developed by Sir Joseph Hooker, and no pains since have been spared to improve its scenic beauty. The Pinetum skirts it on the east side, and the collections of Alders and Willows fringe it on the north and west. These have been, as far as possible, arranged to produce a pictorial effect. Water-lilies, Daffodils, *Primula japonica*, and similar showy moisture-loving plants have also been utilized. In appreciation of what has been done M. and Mme. de L'Aubinière, two capable artists, spent two years in depicting and immortalizing the beautiful pictorial effects which the lake now affords. The result of their labours is a most interesting collection of pictures which have given much gratification to visitors who have been able to inspect them through the kindness of the Director, who placed a room in the "North" Gallery at the disposal of the artists for the exhibition of a selection from their pictures and studies of the lake.

THE ROSE GARDEN.—The few miniature hills and hollows which do something to relieve the naturally unbroken level of the ground at Kew are all of artificial origin. Most of them (like the Bamboo Garden and Berberis Dell) have been developed from old disused gravel pits. Of such humble origin, too, is a little ravine about eighty yards long, which has been made during the past autumn and winter, and which runs from the east side of the Pagoda towards the wall skirting the Richmond Road. It is a winding walk about 8 or 10 feet below the natural level at the deepest part, the banks being held up by tree-roots. The work has entailed the removal of some thousands of loads of sand and gravel. It is intended to make this place an appendage to the Rose collection, which is close at hand, devoting it more especially to the freer-growing and climbing sorts like *R. multiflora* and Crimson Rambler, some specimens of which, in the Bamboo Garden, show how well they are adapted for covering banks, rooteries, etc.

THE ERICACEÆ COLLECTION.—Whatever defects the soil at Kew may have it fortunately happens to be free from lime, and it can, by the addition of a little humus, be easily made suitable for most of the Ericaceous family. Kew owes much of its spring and summer beauty to the members of this Natural Order, the Rhododendron Dell and Azalea Garden being among the most charming features of the place. The collection proper is near the mound on which King William's Temple stands. During the winter it has been replanted and rearranged and

made considerably larger. It now forms a nearly complete representation of the hardy portion of the Heath and Vaccinium families.

THE ROCK GARDEN continues to attract and interest large numbers of "Alpine Gardeners," while the beauty of the collection of plants during their best season, from April to July, is a source of keen enjoyment to visitors generally. Alpine and herbaceous gardening is clearly in the ascendant.

AQUATICS.—The lake is gradually becoming furnished with hardy Nymphæas and other aquatics, and if only the B. P. would consent to the waterfowl being relegated to the Thames or to their rightful home, the Zoo, great things might be done with water-plants at Kew.

THE DIRECTOR, Mr. W. T. Thiselton-Dyer, C.M.G., etc., has recently had the honorary degree of LL.D. conferred upon him by the University of Glasgow in recognition of his distinguished services to botanical science.

OUR PRESIDENT and Curator, Mr. G. Nicholson, was this year added to the list of eminent horticulturists to whom Mr. W. Robinson has dedicated a volume of his periodical *The Garden*. A portrait and notice of Mr. Nicholson form the frontispiece to the forty-eighth volume, from which we gather that he was born in Ripon, Yorkshire, in 1847, that he entered Kew in 1873, and that he was appointed Curator in 1886.

OUR VICE-PRESIDENT, Mr. W. B. Hemsley, writes:—"Dear Mr. Aikman: Your letter announcing the honour conferred on me by the Committee and Members of the Kew Guild unanimously electing me to fill the position of first Vice-President has caused me much pleasure and gratification.

"I willingly and gratefully accept the post so kindly offered, especially as it is not an onerous one, because I am glad to be more intimately associated with a movement which, I believe, is proving beneficial to individual members and to the establishment with which we are proud to be, or to have been, connected.

"I am, dear Mr. Aikman,

Yours truly,

W. BOTTING HEMSLEY."

KEW AND KEW MEN.—The Marquis of Ripon, K.G., paid a high compliment to Kew and Kew men at the Anniversary Dinner of the Linnean Society in May last. He said that great work had been done and is being done, mainly through the exertions of Mr. Thiselton-Dyer, Mr. Morris and the other Assistants, to aid the Colonies in the introduction of new plants, and in the cultivation and development of those which naturally belong to them. In all directions this was the case to-day. On the West Coast of Africa, in the West Indies, in India and Ceylon, satisfactory progress had been made. One of the great works undertaken by Kew

was to educate the Colonies in these matters. It was not easy to induce those whose products were dying out or at a discount to appreciate the labours of the man from Kew, who came down and introduced new plants to oust the old ones. Still much had been done, in spite of opposition, to develop new industries, new cultures, through the exertions of those who had gone forth from Kew for that purpose.

“LADY GARDENERS.”—The addition of two young women to the garden staff of the Royal Gardens has had the result of bringing into prominent notice in the public press the question as to gardening being a suitable profession for women. We noticed in the *Journal* for 1894 (p. 13) the Horticultural College for Women at Swanley, and suggested that Kew and Swanley should have an attraction for each other. The Swanley authorities have since applied for employment for two of the most successful of their women gardeners, and as they appeared to possess the necessary qualifications they were admitted in January last as improvers. The experiment has so far proved satisfactory, and there does not appear to be any insuperable difficulty in the way of the adoption by women of gardening as a profession. Some of the work seems to be too laborious for them, but that is their affair. They can scarcely hope to become all-round gardeners capable of managing a garden single-handed, but the work of certain departments in large establishments can no doubt be done as well by women as by men. There is nothing derogatory or to be ashamed of in garden work, “the purest of human pleasures,” according to Bacon. The dignity of labour applies, we suppose, equally to women as to men. Given fair play and no favour we do not object to anyone competing in the field of horticulture, be it prince or peer, retired army officer or young lady. The pity of it is that, in the case of women, marriage would terminate their gardening career. They would therefore have to undergo all the drudgery with low pay of the under-gardener and, unless they were determined to remain celibate, which heaven forbid!, never attain to the rank of head-gardener and the enjoyment of £80 or £100 a year with a cottage, milk and vegetables. Marriage does not interfere with the course of a man’s profession, but we do not see how an educated self-respecting woman can hope to be a wife and mother and a gardener as well. We protest with the utmost vigour against any proposal to make gardening a convenient profession for old maids or even for the “unsexed” young ones. They would have to be satisfied with single-handed places, anyhow.

“MARRIED, NO CHILDREN.”—Gardeners in private places are valued in inverse ratio to the size of their family, the ideal head-gardener being a man who has married but got no further. It is remarkable that this qualification is, as a rule, most strongly insisted on by employers whose example in this particular is quite the opposite. There are, however, cases of employers who do not object to the gardener’s children. Here is one:—“My dear —, I wrote to the great — and told him I would

take him as a gardener on your recommendation. The poor fellow had been driven into the nurseries, as nobody would have him because he has a wife and seven children, all under eight years of age. As I have always held that improvident marriages have caused the greatness of England—they are invariably prolific—I felt bound to encourage this pariah of gardeners. I think my patriotism will be rewarded. He is a good fellow, and as he has given so many hostages to fortune he is likely to do his best to stop in his nice little cottage.”

MR. W. HARRIS.—On reaching the age of sixty-five, and after a period of service extending from December 1867 to April of this year, Mr. Harris, the seed-collector and label-writer for the Arboretum, has retired. Although better known to men who have worked in the Temperate House and Arboretum departments than to those whose duties were entirely in the Botanic Garden, Mr. Harris has been a familiar figure at Kew for many years, and his retirement severs one of the few remaining links which connect the present time with the early days of Sir Joseph Hooker's Directorship. Mr. Harris was an exemplary member of the staff, and he leaves with the friendship and respect of all who have been his fellow-workmen. He is succeeded by Mr. J. Clark, a young gardener.

MR. C. H. HUMPHRIES was appointed from Kew in May last Curator of the Botanical Station at Aburi, Gold Coast, in succession to the late Mr. W. Crowther. He writes that his health has been good all along, and that he expects shortly to return to England on leave.

MR. J. R. WIGMAN (1895) has been engaged by the Dutch Government to establish and take charge of a Botanical Station in Surinam. He is at present with his father, the Curator of the Botanic Gardens in Buitenzorg, Java.

MR. CHARLES WAKELY.—After five years' good service at Kew, chiefly in the propagating departments, Mr. Wakely obtained, in November last, an appointment as Staff Instructor in Horticulture for the County of Essex, under the Technical Instruction Committee. The post is a good one, and all who know Mr. Wakely will have confidence in his filling it with credit to himself and to Kew. The following note on the nature and value of the work he is engaged on has been supplied by him :—

“As Technical instruction in Horticulture has caused considerable discussion and is often curiously viewed by gardeners, a few notes on the question from an old Kewite actually engaged in the work may prove of interest. Practical illustration is of the greatest importance in order to make the teaching really intelligible and interesting. This accounts for the popularity of garden and greenhouse demonstrations in pruning, potting, etc.

“As the importance of a local knowledge of varieties (both of fruit and vegetables) is generally admitted before one can carry out extensive

planting with any prospect of success, so the practical value of experimental gardens becomes more apparent daily. Such gardens are essential to the development of horticulture on the lines most desired by those who have technical instruction at heart. I have already received much encouraging evidence on this point, and confidently expect more wherever the important bearing of horticulture on our village prosperity is recognized. Already in many places a decided interest has been aroused, particularly in fruit culture. The keenest interest is taken by the villagers in the superior methods of culture taught, and this must surely be productive of good.

“The idea of Horticultural Schools for young gardeners may, as yet, be rather novel in this country, but present appearances suggest that much useful work may be done by them if properly conducted. The lifting out of the old rut of ‘rule-of-thumb’ methods will prove a powerful lever in raising the standard of gardeners. The wider knowledge of plants gained, and the ‘why and the wherefore’ of each practice being given, will afford ample food for reflection and produce far-reaching results.”

MR. H. FRENCH (1894), whose appointment as Head Gardener at Forthampton Court, Tewkesbury, in November 1894, we omitted to note, is giving perfect satisfaction to his employer, which is no more than all who know Mr. French would have anticipated. He has lately married, and from all we have heard his address will be Forthampton Court for many years to come.

MR. JOHN FRASER, F.L.S. (1885).—His friends will be pleased to hear that he is now proprietor as well as editor of ‘The Gardening World.’ He still resides at Kew. Mr. A. S. Galt (1894) is his assistant.

MR. F. ASHTON (1885), who has for some time been connected with Messrs. Lewis and Co., Orchid Importers, Southgate, is now managing partner of the firm. He suffers from imperfect sight, the result of a severe attack of influenza about two years ago.

MR. L. CASTLE (1877).—The Royal Horticultural Society offered last year a prize of £10 for the best essay on “The Commercial Aspect of Hardy Fruit Growing in Great Britain.” The judges were unable to decide between the papers sent in by Mr. Castle and Mr. Wright, now Superintendent of the R. H. S. Garden at Chiswick. They therefore increased the amount of the prize to £15 and divided it equally between these two competitors. Dr. Hogg also presented a large Silver Medal to each. Mr. Castle’s essay, which has been printed for circulation, is a most interesting and valuable contribution to the literature of Fruit Culture.

MR. WILLIAM COOMBER (1861) was engaged in March last as Head Gardener to Lord Lilford, Lilford Hall, Oundle, Northants. His twenty

years' service as Superintendent of the Royal Botanic Gardens, Regent's Park, terminated in December last, the Council being compelled by the circumstances of the Society to dispense with the services of a superintendent.

MR. J. MUIR (1871), Head Gardener and Estate Agent, Margam Park, Port Talbot, writes:—"Thank you very much for your letter and copy of Journal. The latter is really admirably got up, and contains a mass of information that must be of the utmost interest to the hosts of old Kewites scattered throughout the world. What a splendid record Kew shows in this respect! I am more and more delighted to have been associated with it. I have much pleasure in enclosing you a cheque for £1 1s. towards the expenses of the Journal, or whatever needs support."

MR. W. B. HEMSLEY comments as follows on Mr. Burbidge's paper on "Kew as a University of Gardening," published in our Journal last year:—"I was much impressed by Mr. Burbidge's excellent advice to young men. Genuine good manners go a long way towards success, and the enjoyment of success; yet many capable men are so chary of politeness and refined behaviour as to spoil their chances in life. I know of instances where an independent and uncompromising disposition has barred the possessors from advancement, though otherwise qualified. A great deal of it is the outcome of the 'I am as good as you' position, which is mistaken for dignity. I am glad this weak point has been attacked."

MR. ADOLPH REUTER (1854), the Emperor's gardener at the Island of Peacocks, Potsdam, writes:—"I am proud to be a member of the Kew Guild. It is a long time since I worked at Kew in the propagating houses under old John Smith. Dr. Hooker and Dr. Thomson were at that time studying Indian plants. Before going to Kew I was four years in the Royal Gardens, Potsdam, one year in the Botanic Gardens, Berlin, a year in the nurseries of Jacob Makoy, Liège, a year in the nursery of Louis Van Houtte, Ghent, and nearly a year in the Jardin des Plantes, Paris. I left Kew to enter the Royal Nursery, Berlin, as Inspector, and at the same time I was Instructor in the Young Gardeners' Institute. Thirteen years after I was appointed to my present post, which I have held twenty-three years. Two years ago I attained my jubilee as a gardener, when the Emperor conferred upon me the title of 'Oberhofgaertner,' or, first head gardener to the king. There are many fine trees on our island, our oaks being grand, one specimen being from 1000 to 1200 years old. I corresponded with the late Charles Darwin on the subjects of grafting and variation in plants."

MR. R. PROUDLOCK (1888), late Curator of the Botanic Gardens, Calcutta, has been appointed Curator of the Botanic Gardens, Ootacamund, Madras, in succession to the late Mr. A. Jamieson, an obituary notice of whom is printed on p. 34.

MR. G. T. LANE (1891) has succeeded Mr. Proudlock as Curator of the Botanic Gardens, Calcutta; and Mr. H. J. Davies (1894) succeeds Mr. Lane as Assistant Curator in the same establishment.

MR. HUGH MACMILLAN (1895) has been appointed Curator of the Botanic Gardens, Ceylon, in succession to Mr. P. Clark (1880), who is now Manager of a Tea Estate in Ceylon. Mr. MacMillan has already won the high opinion of his chief, Dr. Trimen, and other officials of Ceylon. He married Miss M. Hobden in January last.

MR. ROBERT DERRY (1880), formerly Assistant Superintendent of Forests at Malacca, has been appointed Superintendent of the State Gardens, Perak, Malay Peninsula. After leaving Malacca he went on a collecting tour to Borneo and adjacent islands, and returned to England with a large collection of Orchids, etc. On the eve of his departure in March last to Perak he was married to Miss M. Laurie, who accompanied him to his new domicile in the East.

MR. ALFRED PARSONS (1865) has retired from the superintendence of the Municipal Gardens, Simla, because the authorities proposed to reduce his salary, and has started as a seedsman in Simla. He is succeeded by an honorary army captain, sixty years of age, who knows little about gardening, and who is in the enjoyment of a handsome pension from the Commissariat Department. His appointment is in direct opposition to the new scheme for Government gardeners in India, the conditions of which were printed in our Journal for last year, p. 18.

MR. W. MELDRUM, who was lately engaged by Mr. T. McMeekin as an Assistant in his Tea Estate in South Sylhet, writes:—"I arrived here after a long, tedious, but on the whole interesting journey, and I like the place better than anything I have had yet. For the first three days I did nothing but ride over the estate, which extends over 5000 acres. All the people here, including owners and managers, are really nice, and we live very happily together. The time slips away quickly, for the work is hard—chiefly walking or riding. When I can speak the native language, my situation will be an ideal one."

MR. JOHN H. STEPHEN (1891), of the Botanic Gardens, Bangalore, has been appointed Superintendent of the Public Gardens, Nagpur, Central Provinces, in succession to the late Mr. John R. Ward. The following description of the Bangalore Gardens was forwarded by Mr. Stephen before he left there:—"The town of Bangalore is in the centre of Southern India, at an elevation of 3000 ft. The climate is exceptionally healthy, being neither hot nor cold, but a delightful medium. The average rainfall is 36 inches, which usually falls in one half of the year, the other half being hot and dry. During my three years' residence here, I have only once had fever, and that a slight attack. The 'Lal Bagh' or Red

Gardens, so called because the soil is of a red colour, are about two miles from the town. They are 100 acres in extent and are well laid out; the groups and specimens of trees and shrubs, the borders, flower-garden, terraces, and beautiful lawns with an excellent system of paths, being very similar to what one sees in England.

“An avenue of Java Fig (*Ficus Benjamina*) is a striking feature, the trees being 100 ft. high, with wide-spreading branches. *F. Cunninghamii* and *F. macrophylla* also make fine trees. *Colvillea racemosa* and, of course, the Mango are represented by numerous large specimens. Fine trees of *Araucaria Bidwillii*, 80 feet high and 34 years old, *A. Cookii* and *A. Cunninghamii* are all doing well. *Bougainvillea spectabilis* and *B. glabra* are huge shrubs 15 feet high and as much through; when in flower they are magnificent. Grand specimens of *Spathodea campanulata* when covered with their beautiful orange-crimson flowers are glorious pictures. We ascend a succession of terraces to the new conservatory, near which are borders of roses and other flowering shrubs, and excellent lawns. This conservatory cost R.75,000, and the foundation-stone was laid by the late Duke of Clarence during his visit here in 1889. It is built of iron and glass, and is about half as large as the Palm-house at Kew. Roses do well here, and are largely distributed annually from Bangalore all over India. There is also a very fine fernery, probably the largest in South India, and the collection of ferns is a good one. On the whole the Lal Bagh gardens are said to be of the finest in India.”

MR. JOHN M. HENRY (1867) has retired from the post of Superintendent of the Baroda State Gardens, where he served sixteen years. He previously served twelve years in Madras and Bengal. He has returned to England in excellent health with many years of good work in him, which he purposes devoting to a nursery business in conjunction with his son in the neighbourhood of Reading. At a banquet given in his honour at Baroda on the eve of his departure, Mr. Henry's professional abilities and social qualities were spoken of in the highest terms.

MR. C. HOWLETT (1894) is doing well in Uitenhage, South Africa, where he combines nursery work with botanical collecting. He has sent to Kew several collections of interesting plants, some of which are new to cultivation and several new to science. He writes:—“I am surprised to find many people here who are acquainted with Kew. . . . I have had some delightful botanizing rambles. There is a large kloof (valley) about ten miles from Uitenhage entirely filled with tree-ferns, hundreds of the stems being over twenty feet high. We also have a mountain covered with *Testudinaria*, some of the boles being yards through. When in full leaf they are a beautiful picture. The rivers are gay with *Richardias*. I have lately secured tubers of the true *R. Pentlandii* from up country. I send you a few for trial.”

MR. J. W. MATHEWS (1895), of the Municipal Gardens, Cape Town, writes:—"I found the gardens here very interesting, though quite different from what I expected. Some of the horticultural methods in practice here are amusing to a man trained in England. All the workmen in the gardens, except Chalwin, Ridley, and myself, are black, two of them being Zulus. One of the latter has strong views with regard to Englishmen, and especially gold prospectors. He says, 'When they pat you on the back, look out, look out! When they ask the price of your land, beware, beware! If you refuse to sell it, they will perhaps give you a kick and say get out, you black scoundrel.' We have seven plant-houses filled with ferns, orchids, etc. 300 plants of the last-named are on the way from England. Improvements are being made all round, and the gardens are likely to be very different in a year or so. We have splendid specimen trees and shrubs, but many are spoilt through overcrowding. We have access to the Municipal Library, where there are numerous standard works on botany and horticulture. This makes the loss of the Kew Library less trying than it would otherwise have been. Ridley and I go collecting on Table Mountain, under which Cape Town nestles as under a great wall. There is plenty of life in the town, and altogether we are very comfortably and happily fixed."

MR. FREDERICK E. WILLEY has been appointed Curator of the newly founded Botanic Station at Sierra Leone. It will be remembered that he acted as Curator of the Station at Aburi, Gold Coast, during the late Mr. Crowther's absence in 1893-94 in the West Indies. He returned to Kew in fairly good health and with satisfactory official testimonials; thus qualifying both professionally and physically for service on the West Coast of Africa. In a letter dated April 4 he writes:—"I have enjoyed fair health since my arrival here, although the heat is much greater than at Accra. Next month the rains begin, and I am told they are no joke. The garden here is about 36 acres in extent. It is close to Freetown, and about 250 feet above sea-level, splendidly situated, well watered, but the soil is shallow and poor. I am building houses, laying down roads, etc., and trying to instruct the natives in the harvesting of coffee. I am sending a box of seeds, bulbs, tubers, etc. for the Gardens."

HOW TO LIVE IN TROPICAL AFRICA.—We reviewed this useful book last year; the author, Dr. J. Murray, writes:—"I thank you heartily for having brought under the notice of a large and educated class of young men this 'Guide to Tropical Hygiene,' which is the outcome of a life's experience and which I trust may be the means of saving much preventable sickness, suffering, and death. It is strictly true that three-fourths of the breakdowns, ending in death or being invalided home, arise from ignorance of the science and art of living the hygienic life under tropical conditions. I read the sad record of death in this pamphlet with a sorrowful heart, and recalled my own experience of similar bereavements due to ignorance, wholly and solely. God grant my work may save some valuable lives!

But more is required, and I think it might be worthy of your consideration to form a class for instruction in the rudiments of hygienic science as applied to the cure of health in Tropical countries."

MR. PHILIP MACMAHON (1882), Curator of the Botanic Gardens, Brisbane, writes:—"Feb. 28, 1896. My dear —. How are you? Whittle was in here a moment ago and spoke of you, so as the mail leaves to-morrow I thought I would drop you a line. How am I getting along? Oh, as right as a fiddle. Still single and free, and all that sort of thing. I am living at the seaside just now to escape the heat, and it is very good—lovely tropical moonlight, a delightful pier for promenades, capital company, and all the rest. I have just heard that Cowan has cleared out from his nursery and gone to the goldfields of Western Australia. I would not go to these fields if they lay only on the other side of the fence. Tell the boys that there are many things to be learned beside gardening if they would hope to do anything out here. There are lots of openings, but we so seldom get the right sort of men, most of those who come being almost always hampered by prejudices and fads and expecting things here to jog just as at home. The men who have built up these Colonies never heard of half the 'notions' English gardeners bring out with them, and have neither time nor inclination to listen."

MR. WILLIAM FALCONER (1872) has been appointed Superintendent of Schenley Park, Pittsburg, Pa. He went to the United States in 1874 to be gardener to the late Mr. F. L. Ames, of North Easton, Mass., and was subsequently appointed Curator of the Botanic Garden at Harvard. In 1883 he was engaged as head gardener to Mr. C. A. Dana, New York, and he has edited 'Gardening' since its commencement, some five years ago.

KEW IN THE AZORES.—Last year we enquired as to the whereabouts of a Mr. Brown, a Kewite, who had done good work in the Azores as recorded in Moseley's 'Notes by a Naturalist on H.M.S. *Challenger*.' Professor Trelease, of the Missouri Botanic Garden, writes:—"Apropos of your enquiry in the Journal last year, p. 12, Mr. Brown is dead; his widow, one son and a most charming daughter are living in Porta Delgada, St. Michaels, and are very popular with all English-speaking visitors to the Azores."

MR. JOHN C. MOORE has been appointed Curator of the Botanic Station at St. Lucia, in the West Indies, in succession to the late Mr. John Gray (not a Kewite). Mr. Moore has written an interesting report on the Garden and its capabilities.

MR. W. R. SMITH (1852), a notice of whose life and labours appeared in *Meehan's Monthly* for 1892, was born in Scotland in 1828. He came to Kew from the Dunkeld Gardens in Perthshire in 1851 and left

in 1852 for the United States, where he was appointed Curator of the Botanic Gardens at Washington, a position which he has held ever since. For the last twenty years he has been President of the Parks Committee, Washington, and the result of his influence is patent enough to every visitor to Washington, which is one of the best planted cities we know. No less than sixty-four species and varieties of trees are used for avenues; eleven Maples, eight Poplars, five Elms, four Oaks, three Walnuts, three Limes, two Willows, two Planes, two Gleditschias, and two Birches are used extensively. Some of the more striking of the other trees employed are the Gingko, an avenue of which is a beautiful picture, the Kentucky Coffee, the Tulip tree, the deciduous Cypress, Paulownia, Catalpa, Cercis, etc. As Mr. Meehan says: "The superintendent is open to criticisms from every one who feels that he is a sovereign in the great republic; and yet so judiciously has Mr. Smith filled the position, that there is probably no more popular person in the whole range of Washington institutions than he."

Mr. W. Fowler (1848) writes:—"The Journal has given me information about many of my old acquaintances whose whereabouts I am glad to know. You may be interested to hear that I first heard Sir Wm. J. Hooker lecture in the Glasgow Botanic Garden in 1840. I left Kew in 1848, and for some years wandered about the world. When in Tasmania, in 1852, I made the acquaintance of Mr. R. Gunn, who at that time was collecting largely for the Kew Herbarium. I have been in my present position forty years, and have much to be thankful for. I enclose a P.O. for five shillings."

An account of Mr. Fowler's work at Clifton, Baltimore, U.S.A., was published in the *Baltimore Sun* last year, from which we gather that many fine specimen trees and shrubs which beautify that town were planted by him, and that Mr. Fowler looks upon the beautiful surroundings and the grand old trees with the love and admiration which only the true student of nature can feel. He has watched with zealous care many of the beautiful trees as they grew from small plants to their present proportions. To him they are all endeared by memorable and pleasant associations.

THE MUTUAL IMPROVEMENT SOCIETY.

A long list of papers was got through last winter. Dr. Morris, the Assistant-Director, gave a most valuable lecture on Botanical work in the Colonies, a report of which will be found on page 24. The Curator, Mr. Nicholson, and the Assistant Curator, Mr. Watson, also contributed lectures on professional subjects, that on the packing of plants with practical illustrations, by the Packer, Mr. W. Crisp, being highly appreciated.

Twenty-two meetings were held, the average attendance being thirty-five, the highest number present on one evening being forty-one. Prizes were given by the Chairman, Mr. Watson, for the two best essays, and for

the most useful contributions to the discussion. The first was awarded to Mr. J. M. Abbott for an essay on Alpine Plants; the second prize going to Mr. F. Sander for one on Orchids. The discussion prize was awarded by ballot to Mr. J. C. Newsham.

Syllabus, 1895-6.

Oct. 7.	Botanical Work in the Colonies	Dr. Morris.
14.	Arboretum Notes	Mr. Nicholson.
21.	The Packing of Plants	{ Mr. Watson. Mr. W. Crisp.
28.	Palms	Mr. F. E. Willey.
Nov. 4.	Modern Horticulture	Mr. W. W. Pertwee.
14.	Cacti	Mr. G. H. Cave.
18.	Market Ferns	Mr. T. C. Rayner.
25.	Vegetables	Mr. W. Hales.
Dec. 2.	Trees and Shrubs	Mr. W. Dallimore.
9.	Floral Decorations	Mr. T. J. Harris.
16.	Winter Effects in the Arboretum	Mr. W. H. Hutchins.
Jan. 6.	Chrysanthemums	Mr. C. P. Lawton.
13.	Propagation of Trees and Shrubs	Mr. H. Williams.
20.	Winter-flowering Greenhouse Plants ..	Mr. G. J. Bean.
27.	The Vine	Mr. C. Berryman.
Feb. 3.	Alpine Plants	Mr. J. M. Abbott.
10.	Aquatics	Mr. W. Dyson.
17.	The Natural Distribution of Seeds	Mr. A. Lange.
24.	Orchids	Mr. F. Sander.
Mar. 2.	Ferns and Fern Allies	Mr. J. C. Newsham.
9.	The Heating and Ventilating of Green- houses	Mr. Watson.
24.	Secretary's Report, etc.	

Chairman, Mr. WATSON.

Secretary, Mr. H. WILLIAMS.

Assist. Secretary, Mr. W. DYSON.

THE LECTURES.

THE usual courses of lectures were given last year, the lecturers being Messrs. J. G. Baker, F.R.S., J. R. Jackson, A.L.S., N. E. Brown, A.L.S., and Dr. J. F. Harris. Certificates were awarded as follows:—

Systematic Botany. 13 certificates.

The highest number of marks were obtained by:—Mr. O. T. Hemsley, 204; Mr. J. H. Holland, 197; Mr. G. B. Mallett, 187.

Economic Botany. 19 certificates.

The highest number of marks were obtained by:—Mr. A. Aikman, 315; Mr. O. E. Wüg, 290; Mr. W. J. Auton, 287.

Geographical Botany. 1895. 19 certificates.

The highest number of marks were obtained by :—Mr. J. Rourke, 93 ;
Mr. F. Sander, 90 ; Mr. J. M. Abbott, 89.

1896. 19 Certificates.

The highest number of marks were obtained by :—Mr. J. Jones, 97 ;
Mr. O. T. Hemsley, 96 ; Mr. A. Lange, 95.

Chemistry and Physics. 11 certificates.

The highest number of marks were obtained by :—Mr. J. M. Abbott,
317 ; Mr. W. J. Auton, 308 ; Mr. T. C. Rayner, 267.

British Botany. 8 Certificates.

Nine collections of British plants were submitted for certificates, and eight of these comprised 200 or more species properly mounted and named. The prize given by Dr. Morris for the best collection was awarded to Mr. F. Sander. His collection comprised 61 natural orders and 340 species, well selected, mounted and named. Mr. A. Lange had the second, and Mr. L. Hammarberg the third best collections.

WEDDING BELLS.

It is felt that a record of Marriages among Kewites would be of sufficient interest for our Journal. The Editor will be glad if Members will assist him by forwarding particulars of their marriage as soon as that happy event takes place.

The following is a list of the recent Marriages of which we have received information :—

Mr. W. Cooper	to Miss C. Hopkin	at St. Albans	on Nov. 9, 1895.
Mr. C. H. Curtis	„ Miss A. C. Hanson	„ Richmond	„ June 29, 1895.
Mr. R. Derry	„ Miss M. Laurie	„ Sheerness	„ Mar. 2, 1896.
Mr. H. French	„ Miss A. Shead	„ Camberwell	„ Apr. 14, 1896.
Mr. A. Galt	„ Miss E. Horne	„ Hambledon, Bucks.	„ Apr. 6, 1896.
Mr. F. Garrett	„ Miss S. Latter	„ Hampton	„ Mar. 5, 1896.
Mr. J. Guttridge	„ Miss E. Brown	„ Brentford	„ July 10, 1895.
Mr. W. Haydon	„ Miss E. James	„ Cardiff	„ Sept. 4, 1895.
Mr. J. M. Hillier	„ Miss K. E. Cook	„ Twickenham	„ Sept. 9, 1895.
Mr. A. Hosking	„ Miss F. C. Rook	„ Cambridge	„ Sept. 17, 1895.
Mr. T. Humphrys	„ Miss M. Higgins	„ Upton Pk., Essex	„ Mar. 28, 1896.
Mr. H. McMillan	„ Miss M. Hobden	„ Kandy, Ceylon	„ Jan. 25, 1896.
Mr. S. A. Skan	„ Miss J. Atkins	„ Oakamoor, Staffs.	„ Apr. 9, 1896.
Mr. W. Thomson	„ Miss A. M. Courtney	„ Duxford, Hants.	„ Dec. 11, 1895.
Mr. W. J. Thompson	„ Miss M. Newell	„ Kingston, Jamaica	„ Jan. 6, 1896.
Mr. W. N. Winn	„ Miss B. Marwood	„ Petersham	„ Apr. 8, 1896.

MR. WILLIAM GRANGER.

MR. GRANGER, for many years time-keeper, store-keeper, and fatherly friend to Kew men, retired from the service of the Royal Gardens in April 1893 with a record of 43 years' good work. All Kewites have an affection for Mr. Granger, and many will no doubt remember with gratitude the kindly advice and influence for good which he was ever ready with whenever he saw they were needed.

When I called at his house in Gloucester Road, Kew, to ask for the loan of his photograph for use in the *Journal*, Mr. G. shook his head vigorously and said, "No, thanks, old fellow, I would rather not, I don't care for it, really." It was only when I urged the claims of the Guild to his wife, Mrs. Granger, that she quietly reached down the album, and the thing was done.

When our friend had been coaxed into talking about himself he said, "I am sixty-eight to-day (May 1st) and forty-six years ago I entered the service of the Gardens as a labourer, after having served in the Royal Navy eight years. An injury to my leg put a stop to my sailing. Yes, I enjoyed the sea and saw plenty of life when cruising about South America in search of slavers. Kew was my home, and I was glad to accept work in the Gardens at twelve shillings a week. For this I had to work from 6 A.M. to 7.30 P.M. One of my duties was to meet the postman three times a day at the Palace Gates and conduct him to the office. All the letters came by ferry from Brentford in those days. In a few years I was made keeper of the main gate, wages fifteen shillings, hours in summer from 6 A.M. to 9 P.M. Gate-keepers then had to be satisfied with an ordinary sentry-box for shelter, etc. When the Gardens were opened on Sundays patrol-work was voluntary, and as it was against my principles to work on the Sabbath I was removed from the gate and put under Mr. Craig in the Decorative department."

"Were you employed as a gardener"?

"Not solely, I used to help in the office—copying, cataloguing, etc. for the Curator. I helped Alec. Smith and his successor John Hannan, and after him McLeod."

"What were they"?

"Well, I suppose they were Assistant Curators, but things were quite different then. I had done office-work for 'Old Jock' for years and my experience was useful to them. When the last John Smith came I was his only office-assistant for some years, and when he was away I was in sole charge."

"You were really Assistant Curator, then"?

"If you like, but I was paid only eighteen shillings a week. In 1865 I was raised to the rank of foreman and store-keeper, and my wages were a guinea. The accounts and cash-box used to cause me much anxiety. We paid bills ourselves in those days. When a Civil Service clerk was appointed, my work became less exacting and my hours more definite.

Before that I frequently worked till nearly midnight to keep things straight."

"Overtime"?

"Yes, of course, without pay."

"You had it out in holidays, then"?

"I never had more than my week."

"Yes, I do know a great number of Kew boys, and they were mostly good, hard-working fellows; a few wild colts among them, perhaps, but, bless your heart, young fellows can't be expected to always run straight, can they now? do you think so"?

"'Garden boys' in barracks are not like plaster saints," I remarked.

"I don't read Rudyard Kipling," replied our friend, "but our fellows on the whole have proved a credit to Kew. Most men can be kept on the line; a little reason and timely sympathy are, I believe, often better than the whip."

"You are Clerk to the Parish of Kew, I think, Mr. Granger"?

"Yes, and I have been since 1861, when the Rev. Sir W. Dunbar, Bart., was Vicar of Kew. I love the dear old church, it is a second home to me."

Of course his first home is with Mrs. Granger, his partner for the last forty-two years. Their surviving daughter, Mrs. Merry, together with her husband is in charge of Miss Macpherson's Home for destitute children in Stratford, Ontario. From all one hears, Mr. Granger is to the parish of Kew what he was to the Royal Gardens, a wise counsellor and sympathetic friend as well as a zealous officer. He enjoys first-rate health and is cheery and pleasant as ever. He has a small pension, about forty pounds, from the Government. The letter, of which the following is a copy, was obtained by force from our modest friend. It is very similar in its appreciation of Mr. Granger to what was written of him by our Director 45 years afterwards.

H.M. Steam-vessel 'Undine,'
Dover, March 14, 1848.

DEAR SIR,

There is a young man (W. Granger) whom I have desired to present himself to you, so that the captain will be pleased to enter him for the 'Undine.' He was with me in her before, and I know him to be an excellent young man on whom the greatest reliance can be placed. He had charge of Her Majesty's despatches on many occasions between Portsmouth and Osborne, and was coxswain of the boat when carrying persons of distinction to and from those places. If Captain Eden will do me the favour to rate him A.M. I shall feel obliged. He can then come up to me, as I am very much in want of him to superintend the passengers.

I am, Sir,

Your humble Servant,

GEO. ALLEN.

BEAUTIFUL KEW.

By F. W. BURBIDGE, M.A., F.L.S.

WE are all of us perhaps too apt to look upon Kew as being merely a garden of scientific or botanical interest, and I have often felt a desire to say a few words about Kew from the artistic or æsthetic point of view. Of course, I know that real beauty can never be divorced from the highest utility, and in this connection we may remember that the oldest and best of gardens in Greece and Rome were devoted to the growth of delicious fruits and cooling and refreshing vegetables, as well as to soul-inspiring flowers. Even in most of the best of English gardens, ancient and modern, there was, and is, this sympathetic union, a happy marriage of the useful and the beautiful, and long may such a state of things continue in our England of to-day. One of the last links of the old gardens of the Greeks and Romans still remains to us in the flower strips or borders that happily may yet be seen in many of our best and most fertile kitchen-gardens.

If one only thinks of it carefully, there is no hard-drawn line between what is useful and what is beautiful in a garden; and whenever we hear any quibbling as to living things useful versus living things beautiful, we may suspect a whole host of fallacies in the argument somewhere or other. What is "perfect beauty" after all? Every deep-thinking philosopher from Homer to Ruskin has agreed that "perfect beauty is perfect fitness for a perfect use;" and if we accept and believe that reading, then the atmosphere is clear, and we can once and for ever be sure as to what beauty means. This belief will save us from a host of misunderstandings, and we shall be delivered from all fallacies as to the phrases and jargon so flippantly current as to "beauty being a mere matter of taste," or those which strive against the impossible when they speak of "pure beauty" or "beauty for itself alone." Even an inanimate thing, such as exquisitely worked lace, a painted picture, or a carved image, was never yet really beautiful, except inasmuch as it is useful, and so adds to human happiness and contentment. The poem, the picture, or the statue must be full of clear thought, potent with brain-power, so that all who run may read, all who see may not only admire, but be made the better and happier by admiring. *This is the true end of all beauty, and of all art, whether in the garden or elsewhere, and our forefathers crystallized the fact for us ages ago in the well-known adage of "Handsome is as handsome does."*

Kew then is a garden beautifully useful and helpful, not only to our Colonies and India, but it is above and moreover a garden most usefully beautiful to all those amongst her visitors who care to see and to admire.

I have often wished that more visitors would regard "Imperial Kew" as a paradise of trees and song-birds, shady glades, especially on hot holidays in the summer-time, when men, women, and children should rest themselves in the fresh air on the cool grass and beneath the tree-shade, or in the glades down by the rhododendrons and bamboos, or near the

grounds of the Queen's Cottage, or beside the lake, or on the breezy fosse wall within sight of the willow-fringed Thames. A few hours in the grounds at Kew on a balmy day in April or early May is a pleasure to be remembered. There is freshness, tenderness, and melody everywhere, and on all sides a wealth of soft verdure and of opening buds on the flowering shrubs and trees. Rhododendrons, Azaleas, Magnolias are in bloom, and amid the shimmer of the young foliage on a soft and showery day the wood-pigeons and ring-doves coo to each other in the trees, and the thrushes and blackbirds vie with each other in singing their sweetest songs. Kew in the time of apple and cherry blossom, or later when plums and pears are aglow everywhere, or when the laburnums are "rich hung with golden rain," or when the blue-bells throw an azure mist on the turf or beneath the trees, is the place to see and enjoy. The Queen's Cottage grounds are now carefully opened up by well-planned vistas, and so are easily seen. Kew in the fresh and flowery days of spring is a garden full of pleasant sights and sounds and odours, and yet for one visitor who knows and appreciates the arboretum, there are hundreds and thousands that never get beyond the greenhouses and flower-gardens in the old botanic garden, and so never see the more picturesque part of the gardens at all. Now and then, however, there are appreciative individuals—or groups even—who do so, and who meander calmly under the trees, or by the lake, or beside the old creeper-laden walls, and through the rock-garden, and to some of these, every bud and leaf, every sight and sound, and every whiff of the fresh flower-scented breeze yields a new delight, and oft conveys a world of meaning; and yet even amongst these there are but few, very few, who see a tithe of the wealth and variety of vegetation that has been gathered together here during the past century and a half or so.

I have seen Kew under most of our very variable climatic aspects, and have found much to admire at all times and seasons of the year; I have profitably spent days and days in the richly-stocked greenhouses and ferneries, in the noble Palm House, and other places devoted to the denizens of tropical climes, but for me Kew has most attractions out of doors, and especially so during our finest days of spring and summer and fruitful autumn time. If driven to shelter by a passing shower, I have instinctively followed "the line of least resistance" to my moods, and gone over to the "Temperate House," or to the "North Gallery," with its collection of plant portraits and pictures from all parts of the world. Many and many a wet Sunday afternoon have I spent to my own advantage in the Museums, and much that I have ever attempted or done has been inspired by many happy memories of all that is to be seen, and all that is suggested by the wonderful collections of vegetation, living or dead, as preserved at Kew.

By no means last or least amongst the many attractions of "Imperial Kew" are the associations, the happy memories of the bygone directors, curators, gardeners, and collectors, artists and botanists, that have left their footsteps more or less clearly printed on the botanical sands of time.

There are several direct approaches from London to Kew Gardens, viz. : by the North London Railway to Kew Bridge, or *via* the District Railway to Kew Gardens Station, or you can go on to Richmond by either rail or by omnibus and take a most interesting walk back by the river-path between the Thames and the Old Deer Park, passing the Observatory on one hand and Syon House on the other, and thus entering the Gardens by a bridge over the fosse wall and so reaching the arboretum at once, as it were.

Kew village, even thirty years ago, was a quaint kind of sleepy hollow, with its red-brick palace in the background, beside the Thames, then not too easily reached by an odd river-steamer or by the Richmond omnibus ; but it is a rapidly-improving and alert up-to-date place to-day, and the quaint old market-gardens and fruit-orchards are giving place to the new road and the spick-and-span villa residence. The old city barge and the picturesque malt-houses are giving place to a sort of new and suburban Covent Garden Market held near the old toll-bridge, for which now happily no coin need be reserved by the young gardeners of to-day. Kew village is as full of tea-houses as the rivers at Shanghai or Canton are of tea-boats. Amongst other innovations, there are the lady gardeners now on probation in a modern Eden—a privilege no Adam of our time would be so ungentle as to grudge them. For them, as for all cultivators of the soil, there is welcome and room.

It is beside the little church on Kew Green that the bones of Gainsborough rest—he who, like Turner and de Wint, and Geo. Morland, and his rival Reynolds, loved English beauty and painted it so well.

But enough : you may live at Kew and not appreciate half its charms ; when you are away, however, on the mountains or hillsides of India or Borneo, or in the forests of Japan, or in the tea-gardens of the Neilgherries, or those of Ceylon, your thoughts will fly homewards and memory will again linger by the willow-fringed Thames, and wander through the sun-lit glades and sylvan shades of beautiful Kew.

KEW MEN AND BOTANICAL WORK IN THE COLONIES.

By Dr. MORRIS, C.M.G., etc.

THE majority of the young gardeners trained at Kew find employment in various branches of Horticulture at home, but a considerable number are appointed to Botanical posts in India and the Colonies. It is in connection with the latter that the present remarks particularly apply. Although numerically not a large band, they have done, as already shown, excellent service to the State, and worthily maintained the credit of the establishment and the prestige of the Kew name in various parts of the world.

It is an axiom of life that to be forewarned is to be forearmed. Hence those who leave Kew for service abroad cannot be too well strengthened,

beforehand, for the responsible, and in some cases arduous duties that lie before them. It is a very considerable change for a young man who has become accustomed to the regular system of Kew work, and who has been surrounded by enthusiastic associates of his own age and with similar aspirations, to be suddenly transplanted into entirely new surroundings, frequently amongst a native race speaking a strange language and with habits and customs so entirely different, that at first sight they may easily be believed to belong to another world. The dominant factor in all this is the climate. Most of the posts filled from Kew are in the tropics. Hence not only is the main body of the people a race apart, but the indigenous plants and animals are also new. In fact, there is hardly anything to recall the life and circumstances of the temperate zone. The young Kew Gardener when he reaches his post requires to have all his wits about him if he is to escape the artless blunders of the "new arrival." The fewer the blunders, the better the start he makes. Now and then he may be fortunate enough to go out to a Botanical Institution, where he will be received by an experienced and sympathetic chief. If so, he can make a start under favourable auspices, and become accustomed to his life so gradually, that he is hardly aware of the changes that mould him to his new environment. In many cases, however, he has to stand alone from the first. He may be the only technical officer, concerned with plant-life, in the Colony, and directly he lands he is expected to plunge at once into the active duties of his office.

It is obviously difficult to be fully prepared for all the possible circumstances met with in a Colonial appointment. Given, however, a sound constitution, good common sense, a thorough knowledge of his profession, and a determination to devote himself wholly to the work entrusted to him, the Kew man need not be much concerned as to his ultimate success. This is from the official side. There are necessarily other aspects of his life to which he must also give attention. These concern: (1) his relations with his fellow countrymen, the white people in the Colony; and (2) his relations and dealings with the native population, and especially with the work-people engaged under him. Usually the white people are ready to give a kind welcome to the new man. They appreciate the services rendered by Kew to the Colonies, they are fond of gardening, and consequently are only too glad to meet a man possessing a special knowledge on the subject. Compared with men occupying corresponding positions in life, the Curator of a Botanic Garden in the tropics has better opportunities than most for making friends amongst pleasant people in his neighbourhood. As regards the native population, his intercourse with them should be dignified and self-respecting, marked by a careful consideration for their feelings and prejudices, and by an unvarying desire to assist them by the diffusion of useful knowledge in regard to the cultivation of their plants and gardens. He should never place himself under obligations to any one, and especially to the natives. His aim should be to maintain a position entitling him to the respect and esteem of the community at large without committing himself to any section

of it. This is by no means an easy task, but its fulfilment would go a long way to render life in the Colonies as pleasant as it would be generally a useful and honourable one. The treatment of the native work-people is a matter that requires great tact and judgment, especially if they speak a language of their own. In the first place, the man acting as interpreter between the Curator and the natives should be thoroughly trustworthy, and in all dealings with them care should be taken to impress the people with the absolute justice of the treatment they receive. The full measure of the work capable of being rendered by them should be obtained by quiet but firm discipline. The proper control of the natives is so important a point in the management of a Colonial Botanic Garden, that it cannot receive too much attention. Indeed, owing to failure in this one department, the usefulness of such an institution may be very seriously impaired.

COLONIAL BOTANIC GARDENS.

It may be useful to recall that the primary object of Botanic Gardens, when first started, was the systematic cultivation of plants for instruction in the science of Botany and the advance of medicine. Latterly their scope has been extended to enable them to become, from a horticultural point of view, a source of pleasure and recreation to the general community, and a means of extending knowledge in regard to the cultivation and utilization of plants of economic value. The latter object is the one that comes into special prominence in the Colonies. Botanical Gardens there are maintained not only for the purpose of advancing the study of native and other plants, but also for turning the varied resources of the vegetable kingdom to useful and commercial ends.

The Botanical establishments now existing in India and the Colonies, in correspondence with Kew, number about 50. They employ a staff consisting of 100 European officers. Particulars of these are given in Appendix iii. of the *Kew Bulletin* for the year 1895. These establishments may be conveniently grouped under three heads:—First, there is the highest grade, called a Botanic Department. This consists of several establishments under the charge of a Director, who generally has his headquarters near the seat of Government, with branch Gardens under Superintendents or Curators, at higher or lower levels, for the cultivation of plants requiring special conditions. The total area under cultivation may be from 100 to 500 acres, the annual cost from £3000 to £6000, while the salary of the Director may be from £400 to £800. Botanical Departments of this character exist at Calcutta, Madras, Ceylon, Straits Settlements, Mauritius, in some of the Australian Colonies, and Jamaica.

The second grade is that known as a Botanic Garden. This is usually a single institution with a smaller area under cultivation; it seldom exceeding 50 acres. The annual cost is from £1000 to £3000. The chief officer bears the title of Superintendent, with a salary of £300 to £500. Such Botanic Gardens exist at Hong Kong, Trinidad, British Guiana, the North-West Provinces, and many of the Native States of India.

The third grade is a Botanic Station. This is a comparatively modern institution. It was called into existence to suit the circumstances of the smaller islands in the West Indies that were unable to support a regular Botanic Garden. The first Station was started at Grenada in 1886. The functions of a Botanic Station are those of an experimental or trial station, devoted to the practical work of maintaining nurseries for the propagation and distribution of economic plants, and affording hints for their successful cultivation. The officer in charge is a highly trained gardener, who bears the title of Curator and is paid a salary of £130 rising to £180 and £200 a year. The area under cultivation may vary from 3 to 30 acres. The total cost would be £300 to £800. Botanic Stations are now established in the West Indies at Grenada, St. Vincent, Barbados, St. Lucia, Dominica, Montserrat, Antigua, St. Kitts-Nevis, and British Honduras. They have also been extended to West Africa, where there are stations at Lagos, the Gold Coast (Aburi), Gambia, and Sierra Leone. An account of the starting of the Botanic Stations in the West Indies is given in the *Kew Bulletin* for June and July 1887; and of those in West Africa in the *Kew Bulletin* for 1888, p. 149, and 1893, p. 363.

It may be added that all the above establishments are maintained by the local Governments, and the officers are entitled to pension. In some cases, as at Natal and Tasmania, there are Botanic Gardens, under the control of a Scientific Society or Committee, receiving only a portion of their income from Government. The balance is made up by subscription amongst the members and from the sale of plants.

KEW AND THE COLONIES.

The intimate relation of Kew with the Botanic Institutions in India and the Colonies has existed from the earliest times. Parliament more than fifty years ago imposed upon Kew the duty of acting as the chief authority in matters affecting Botanical science in different parts of the Empire. Consequently its advice and assistance are sought by Government Departments both at home and abroad. This naturally follows from its position and resources, and although it does not control any of the Institutions in the Colonies, it is regularly consulted in regard to them, and often asked to make a selection of suitable men to take charge of them. The special knowledge possessed by members of the Kew staff is brought to bear upon all questions affecting the plants and the plant industries of the Empire. It maintains a National herbarium for the advancement of scientific botany, and assists in the preparation of works dealing with the Floras of British Possessions. It conserves their plant products in the Museums of Economic Botany, and maintains large collections of living plants affording material for study and observation to persons in this country desirous of becoming acquainted with the vegetable resources of our Colonial Empire. It does, however, more than this. It acts as a medium of exchange and a Botanical clearing-house for seeds and plants from all parts of the world, and it is a training school for gardeners,

affording them the means not only for acquiring a knowledge of Botany, but also of the theory and practice of Horticulture, and fitting them for service in all parts of Her Majesty's Possessions.

STARTING WORK IN THE COLONIES.

After being selected for an appointment abroad, there is usually a good deal to do, and a short time to do it in. The officer-elect would do well to study carefully the conditions of his appointment, and try and understand exactly the value of the salary offered. A salary of, say, three pounds per week seems comparative opulence after living for some time on a pound a week. In most Colonies a young man can make a fair start on the former salary, but it requires frugal management, and leaves very little margin, especially at the end of the first year. Usually there is a house provided, and that is worth £25 to £30 a year. In Colonies where there is a silver currency, a larger salary is necessary and generally given. It is important, however, to realize beforehand exactly how far the salary will go, as it would be most unwise to build expectations that cannot be realized. It is better for a man going out to a junior appointment to be unmarried. He can then have two or three years in which to make a home, and be in a better position to keep a wife. If he waits five or six years he will be in a still better position, both as regards salary and experience. A copy of the agreement signed in this country should be kept, for upon it will depend all future action of the local government in regard to salary and pension. The chief points requiring attention before embarkation are a judicious selection of books and clothing, and such a general knowledge of the Colony as can be gleaned on this side. It is not desirable for a young man to incur a large expenditure for clothes. He will be in a better position to judge of his requirements after a short time abroad, and besides, with the exception of a suit or two for best wear, he can generally obtain suitable clothing for the climate in the Colony itself. Then in regard to books, a few good ones for personal use are indispensable. Murray's *How to live in Tropical Africa* is a useful guide to health in the tropics, and should be procured. A book treating of the local flora, the *Treasury of Botany* (Longmans), Nicholls' *Tropical Agriculture* (Macmillan), a complete set of the *Kew Guides and Handlists*, Oliver's *Indian Botany* (Macmillan), and, if it can be afforded, Nicholson's *Dictionary of Gardening* (Upcott Gill). At most of the Botanical Gardens in the Colonies there is a library containing standard works on Botany, and some of the Horticultural papers are taken. Also a dissecting microscope, and appliances for collecting and drying plants. If these are not already provided, there is generally not much difficulty in obtaining them on making application in the proper quarter.

A first voyage to the tropics is a very striking event in one's life. First impressions of tropical vegetation are never forgotten. Grant Allen has described the tropics as the "biological head-quarters." Kingsley's *At Last* affords in glowing language an introduction to the tropics of the New World. This book should be read not only on the voyage out, but

again amid the scenes which it so graphically describes. Darwin's *Naturalist's Voyage* and Hooker's *Himalayan Journals* are excellent books to study as guides to observations in natural history. A residence in the tropics should be regarded as a special opportunity for studying the complex problems connected with the struggle for existence, seen nowhere so well as in the teeming life of a tropical forest. Also for becoming personally acquainted with forms of plants that are unknown in the temperate zone. As the vast majority of living things are herbs or trees, life in the tropics is a liberal education in botany, more valuable than any obtained at school or college.

On arrival at his destination the officer's first duty is to report himself at the office of the Colonial Secretary, who is the head of the Civil Servants of the Colony. Next he will seek the chief of his own department, and under his direction assume the duties of his office. If there is a Garden already existing, he will spend some days in carefully studying its condition and circumstances, and make himself thoroughly conversant with the methods adopted for carrying it on. These methods may strike him as somewhat odd, and probably slow and trivial. It is well, however, not to enter upon sweeping reforms that afterwards may be found impracticable. The conditions in the tropics are so absolutely different from those that obtain in northern climates, that it is impossible to carry on cultural operations on the same lines. For instance, glass-houses and conservatories are quite unsuited to the tropics. What are required there are lightly thatched sheds affording shade and shelter for delicate plants, and keeping many of them, especially ferns, as cool and as moist as possible. Again, the tools which are employed in English gardening are not adapted for natives whose feet are always unshod, and therefore cannot dig with spades, and whose chief implement for all gardening operations is either a small hoe, a cutlass, or even a pointed stick. Native workmen can be taught to use some English tools, but it is advisable to begin with the young, and place them under a patient and sympathetic foreman. At every Botanic Garden care should be taken to train a certain number of youths as gardeners to supply suitable men to take charge of private gardens, to act as overseers on plantations, and to become agricultural instructors amongst the natives. This function of a Botanic Garden, if rightly discharged, is calculated to be of great benefit in improving the cultivation of industrial plants and increasing the general prosperity of the Colonies.

To start an entirely new Garden is not an easy task. In selecting a site it is indispensable the Garden should be close to the chief town of the Colony, so that the people can often visit it, and make themselves acquainted with the work carried on there. It should be well sheltered from the prevalent winds, and protected by a stout fence to keep out cattle, pigs, etc. The soil should be tested by sinking numerous holes to ensure that it is of good depth and well drained. A continuous supply of water must be available during the severest drought, otherwise valuable plants will be lost every year both in the nurseries and in the borders. Sufficient land adjoining the Garden should be available to allow of

further extension. It is important to remember that if a bad site is selected, all the time and money expended upon it will be practically thrown away. The Curator will have numerous suggestions offered to him by local people, but if he keeps in mind the points here stated, and insists upon their strict fulfilment before giving his final judgment, he will save both himself and all connected with the Garden much anxiety and trouble in the future. In one or two instances sites have been selected either too far from the principal town or where there was an inadequate supply of water. These circumstances have greatly hindered the development of the Garden and proved a source of disappointment to all concerned.

As regards the Botanic Stations that are now being established in the smaller Colonies, it may be useful to state their objects a little more fully. These are (1) to supply accurate information in regard to plants known to have a useful application in arts and commerce: this may be done either orally by the Curator, by means of correspondence, or by occasional *Bulletins* published by the Government; (2) to keep up in a systematic manner a named collection of native and introduced plants cultivated for use or ornament; (3) to supply seeds and plants to local people for the purpose of improving their gardens, or starting new or extending old industries; (4) to provide an object-lesson in the care and culture of plants, and promote a taste for horticulture amongst the general community; and last, but not least, the training of youths as gardeners, to advance horticulture and develop local industries.

DUTIES OF OFFICERS IN CHARGE OF BOTANIC GARDENS.

When settled in the active discharge of his official duties, the Curator has numerous calls upon his time. It is important to realize that his whole attention should be devoted to the Garden, not merely in the upkeep and cultivation of plants, but in regular correspondence with officers in charge of similar Gardens elsewhere, in procuring seeds and plants, whether for use or ornament and botanical information generally. All the plants he has under cultivation should be correctly labelled with durable labels, and information respecting them published from time to time. The Garden Records should, at least, consist of a catalogue of the plants in the Gardens, a journal of meteorological observations, a record of plants received, with the donors' names, as well as those distributed in the Colony and sent abroad. The information contained in the garden records should be published in the Quarterly or Annual Reports presented to Government. A day now and then could be usefully spent in collecting living indigenous plants of an interesting character for cultivation in the Garden or exchange with other institutions. If for the latter purpose, they should be established in pots for at least a year before they are sent out. In order to have plants properly named good specimens should be carefully dried and submitted to the nearest botanical authority. Duplicates of such plants should be preserved in the Garden herbarium for future reference.

It is only necessary to add that a botanical officer who is diligent and active, and who keeps himself in touch with those engaged in similar work locally and elsewhere, has a useful and honourable career before him. His chances of promotion and increase of salary depend very much on himself, and the influence he exercises by the faithful discharge of duty in the Colony in which he serves. Of his social relations, the care of his health, the use and abuse of stimulants, and the advance he should make in study and professional acquirements, a good deal might be said. These remarks have, however, extended beyond the length first intended; and it only remains to say that where Kew men do good service and rise in their profession, no one feels prouder of them than their *alma mater*, from whose care they have gone forth to extend the bounds of knowledge and increase the prosperity of the Greater Britain over the seas.

BOTANISING IN THE HADRAMAUT.

By Mr. W. LUNT.

IN the *Journal* of the Kew Guild for 1894 there was a notice of my appointment as Botanical Collector for Kew with Mr. J. Theodore Bent's Expedition to the Hadramaut, in Southern Arabia. The following account of the journey to that region may be of some interest to Kewites.

The expedition left London on November 24th, 1893. Taking the overland route to Marseilles, we joined the s.s. 'Melbourne' (Messageries Maritimes Co.) on the 27th. Our course was through the Straits of Bonifacio and Messina; then, leaving Italy behind, we steered straight for Alexandria. The view from the harbour here is a most imposing sight, the immense whitish buildings being rendered more striking by the glare of a powerful sun.

Port Said was reached shortly afterwards, and then the Suez Canal, which was to me a very interesting portion of the journey. The land on each side, as far as the eye can reach, is nothing but immense barren wastes of sand, very thinly sprinkled with dwarf scrubby plants.

The land on both sides of the Red Sea is similar in character, and very mountainous. We arrived at Aden on December 7th. My first impression of the total absence of vegetation here was dispelled on my exploring the numerous valleys among the hills at Steamer Point, where, during a stay of a few days, I obtained about 50 different species of plants.

We left Aden on December 15th, by a small coasting-steamer, for Makullah, about 300 miles further along the coast, a two days' trip. The coast between Aden and Makullah presents a very barren and dreary aspect, it is of a peculiar sand or stone colour, which is very dazzling to the eye in bright sunshine. The land rises at varying distances from the

shore, to a height of 400 to 500 feet, and is of an undulating character for 30 or 40 miles inland. It then stretches away as an immense plateau to the Central Desert, intersected in all directions by the ramifications of the large valleys. The plateau is from 3000 to 4000 feet above sea-level, and is practically waterless except after rain. We were delayed at Makullah until the arrangements with the Sultan of that place were complete. An excursion among the hills and valleys near showed how barren the place really was. The few plants that are to be found are very thinly distributed, and are in striking contrast to the date palms, cocoanuts, bananas, and other plants which are there cultivated by irrigation.

We left Makullah on the 23rd December with 22 camels and an escort of native soldiers, but could not proceed far on the first day, so after a march of about three miles we encamped for the night, and I had the novel experience of seating myself upon a stone to eat my dinner by the light of the moon. Here, too, I spent my first night under canvas: my bed, a couple of blankets laid upon the hard stony ground, and another one rolled up for a pillow, but I was soon fast asleep, and awoke quite refreshed next morning. Most of my work had to be done whilst we were on the march, and the rugged stony nature of the undulating ground, and the frequent twisting and turning of the narrow track, forbade any lagging behind, and compelled me to keep a sharp eye on the rest of the party.

On one occasion I was quite lost, through having stayed behind to gather some plants; fortunately, I had learnt sufficient of the language to enable me to ask a native woman, whom I met, in which direction the rest had gone.

When staying at any place for a day or two, it was necessary to have a soldier for guidance and protection, but he was generally too lazy to be made use of in any other way.

After leaving Makullah we found small springs at the villages, but the water was invariably more or less brackish. After a week's journey we reached the top of the plateau, where there is scarcely any water; indeed, all through the valley of the Hadramaut there was no water, except that obtained from wells varying in depth from 20 to 50 feet. It is drawn up in leathern buckets by means of a rope and pulley by bullocks, and is all carefully conducted through channels for the irrigation of the crops. On reaching Al Katan we were very hospitably received by the Sultan, who invited us to stay in his palace. From him we learnt that there had been no rain for two years, and that when rain does come it is sometimes only for a day, or perhaps only a shower. Much distress is caused by the scanty supply of rain and the difficulty in reaching the water, and a more arid, parched up country could not well be imagined.

Whilst at Al Katan we tried to get to Bibaroot, where there is said to be a volcano, but we could not get any further than Shibam, on account of the hostility of the neighbouring tribes; we were therefore obliged to return to Al Katan.

Seeing that we could not possibly reach Bibaroot, we again set out for the coast. On our way back we were in constant danger, and were actually several times fired upon by the natives, the bullets coming very close to some of our party; I heard them "hizz" very distinctly; fortunately none of us were injured. A few days later we were fired upon by our own camelmen, and from that time until we reached the coast—about ten days' journey—our situation was very grave, and we were nearly driven to leaving all our possessions behind and making for the coast. Fortunately the danger was averted before we got to that extreme.

At Ghail-ba-Wazir, which is a long day's march from the coast, we found hot springs and an abundance of water. Here cocoanuts, dates, bananas, tobacco, and various other plants are cultivated, tobacco being grown in very large quantities.

Shahr, a rather large town on the sea-coast, is surrounded by land of very desolate and barren appearance. It consists chiefly of loose sand, which drifts about and renders the land useless and barren of vegetation. The water we had to drink was always brackish, sometimes decidedly salt, and often so filthily dirty, or teeming with animal life, that we had to shut our eyes whilst we drank it. After our filters were broken, we had to filter the water through a handkerchief to free it from all the larger "polywogs." The craving for water was sometimes so great that we drank even this with a relish. It makes one shudder to think that the natives have no other water to live upon than this disease-laden liquid.

On March 24th we left Shahr for Aden in a "sambuk" or small Arab dhow, which is no better than an open barge with one tremendous sail. We were fortunate in having favourable winds, and covered the distance, between 300 and 400 miles, in about three and a half days. We called at Makullah, to pick up some things we had left there, and I was very much disappointed and irritated to find that my collection of plants from Aden, which I had left there, had been stolen. No doubt the thief would be equally disappointed and "sold" when he opened the package.

We were back in Aden on March 28th, and I enjoyed there a good drink of clear water. At Aden the sea-water is condensed for drinking purposes. We returned by the P. & O. s.s. 'Britannia,' calling at Port Said, Brindisi, Malta, Gibraltar, and Plymouth. The passage home was a decidedly fair-weather voyage, but it was very cold. Even in the Red Sea, owing to a northerly wind, the weather was decidedly cold, and as we neared home it became still colder, so that even with overcoats and mufflers on we were shivering.

The 'Britannia' arrived in the Royal Albert Dock on Saturday, the 21st of April, and I at once proceeded to Kew, where I was delighted to be able to shake hands with many of my old friends again; some of my companions I found had left, but many remained, and gave me a hearty welcome back again to Kew.

An account of the Expedition and of the principal plants collected appeared in the 'Journal of the Geographical Society' for 1894. The 'Kew Bulletin' for 1894 contains a detailed account of all the plants collected by me. There were 150 species, including 25 new species* and two new genera.

IN MEMORIAM.

MR. ANDREW JAMIESON.

WE regret to have to record the death, on the 17th August last, of Mr. A. Jamieson, Curator of the Gardens and Parks at Ootacamund, Nilgiris. Mr. Jamieson's health had not been good since the death of his wife in 1890; and in March last year the Government, on the recommendation of the Director, granted him two years' furlough. He subsequently proceeded to Madras, and died a few days after his arrival in the General Hospital there. He was 53 years of age. He leaves four children. He left Kew in 1868 for Ootacamund, and for many years he was in sole charge of the Gardens there. On taking over charge of the Department in 1883, the late Mr. M. A. Lawson †, M.A., the Director, wrote that he wished especially to record his obligations to the Curator, Mr. Jamieson, for his loyal support and for the skill and perseverance which he displayed in the performance of his duties.

Mr. Jamieson won the respect and regard of the residents of Ootacamund. In his official capacity he appears to have well earned the good will of his superiors, as not only was he very methodical in his routine work, but he was always ready to give any information sought in connection therewith. Amongst some of the results of his earlier labours may be mentioned the laying-out of Sims Park, in Coonoor, and the development of the Government Gardens at Burliar, where excellent fruit and other trees and economic plants were introduced and successfully cultivated. In designing and laying-out parks and pleasure-grounds Mr. Jamieson's efforts were thoroughly practical; and in a word it may be stated that he efficiently discharged the duties of his position up to the time of his unfortunate loss of tone and health, which ended in his death. His official reports were full of valuable information.

Mr. Jamieson's father was for many years gardener to Sir Peter Coats, Woodside House, Paisley, under whom he worked before entering Kew in 1866.

MR. WILLIAM BINDER.

We regret to have to record the death, at the age of 75 years, of Mr. Binder, which occurred at Kew on January 12th last, after a long

* Among these are *Fagonia Luntii*, Baker; *Caralluma Luntii*, N. E. Br.; *Verbascum Luntii*, Baker; *Aloe Luntii*, Baker.—Ed.

† This gentleman also died a few weeks ago.

and painful illness. He was foreman in the Temperate House in the Royal Gardens from 1871 to 1887, when he was retired on account of old age. The Superannuation Act of 1887 abolished pensions for men in Mr. Binder's position; consequently he received only a small retiring gratuity. Luckily, however, he had for many years been a subscriber to the Gardeners' Benevolent Association, and this entitled him to an annual allowance till his death. Mr. Binder had filled some important positions in private gardens—notably that of Sir Thomas Edwards-Moss at Otterspool, near Liverpool, where he was head gardener many years. He was a successful cultivator of Himalayan Rhododendrons, Acacias, and other hard-wooded plants.

MR. CHARLES EASTWOOD.

The death of Mr. C. Eastwood on December 21st, 1895, robbed the Guild of one of its most enthusiastic supporters and the profession of one of the best cultivators of hard-wooded plants. His nursery at Bloomer Gate, Midgley, near Halifax, was famed for *Gleichenias*, Orchids, *Acrophyllum*, etc. He was also a successful landscape gardener. Mr. Eastwood was one of a considerable number of strong men who graduated at Kew in the sixties. He retained his interest in Kew and its work up to the last, and was always a liberal contributor of choice plants to the collection. He was born in 1839, and started work with his uncle at the Luddenden Nursery when only 11 years of age. He entered Kew in 1860, and in less than a year was appointed foreman in the Herbaceous Department. His uncle becoming blind in 1861, Eastwood left Kew to take over the Luddenden Nursery, which he developed into an important business. His kindly and genial manner gained him a large circle of friends. He took a prominent part in local politics, and established a reputation as a preacher at Butts Green Chapel. He leaves a widow, seven sons, and three daughters. The Nursery at Luddenden is now conducted by his son, Mr. Thomas Eastwood.

MR. W. H. GOWER.

Most Kewites will have learnt from the horticultural press that Mr. Gower died on July 30th, 1894, at Tooting. He was for many years a prolific writer on horticultural subjects, chiefly Orchids, his contributions to the *Garden* being perhaps the most valuable. He was joint author with Mr. J. Britten, F.L.S., of a small work entitled *Orchids for Amateurs*; he also assisted Messrs. B. S. Williams and Sons in the preparation of their various publications. Mr. Gower was for some years foreman in the Orchid and Fern Departments at Kew, leaving in 1865. He formed a collection of dried specimens and pictures of garden plants of all kinds, which after his death was purchased and shared by Kew and the Edinburgh Botanic Garden. Mr. Gower was 60 years of age when he died.

Mr. H. W. LEWIN, head gardener at Drumpellier, Coatbridge, for nearly forty years, died in October 1894. He left Kew in 1853 to succeed his father as head gardener at Lonsdale House, Fulham, and soon afterwards obtained the post at Drumpellier which he held till his death. "He was a man of great energy and refined taste; consequently, it was always a great pleasure to visit Drumpellier Gardens. Among those who attended his funeral were Sir John Floyd, Bart., and Sir David and Lady Buchanan, who referred to Mr. Lewin as their old and valued friend" (local paper). His brother, Mr. W. Lewin, also a Kewite, is gardener at Dunorlan, Tunbridge Wells.

Mr. THOMAS M. COX, who left Kew in 1845, and who spent the last of his years at Balham, died in February last after a short illness. He frequently came to Kew, and enjoyed a gossip about Kew in the early days. His daughter writes:—"It was one of my father's last wishes that you should have a sketch of his professional career, but he died before writing it. He was a keen student of plants all his life, and his collection of dried specimens, especially of British plants, is a large one, representing much patient work."

PATRICK CULKIN ("Old Paddy"), WILLIAM INGRAM ("Old Soldier"), and Miss KINGINY ("Old Polly").—These three well-known and popular characters have lately gone over to the majority, the last to go being Ingram, who, since his superannuation a few years ago, has acted as a kind of self-constituted guide to visitors who were not averse to the spicy gossip and blarney of an insidious garrulous old Irishman. The *Richmond and Twickenham Times* devoted half a column to an account of him when he died, at the age of seventy.

PRESENT KEW STAFF.

*Entered
Kew
Service.*

Director.....	W. T. Thiselton-Dyer, C.M.G., C.I.E., F.R.S., LL.D., Ph.D., F.L.S.	1875
Assistant-Director	Daniel Morris, C.M.G., D.Sc., M.A., F.L.S.	1886
Assistant (Office)	John Aikman	1888*
" "	William Nicholls Winn	1890*
Keeper of Herbarium and Library..	John Gilbert Baker, F.R.S., F.L.S.	1866
Principal Assistant (Phanerogams).	William Botting Hemsley, F.R.S., F.L.S.	1860*
" " (Cryptogams)..	George Masee, F.L.S.	1893
Assistant (Herbarium)	Nicholas Edward Brown, A.L.S.	1873
" "	Robert Allen Rolfe, A.L.S.	1879*
" "	Charles Henry Wright	1884
" "	Sidney Alfred Skan	1892*
" " for India	Otto Stapf, Ph.D.	1891
Botanical Artist	Miss Matilda Smith	1878
Doorkeeper	Samuel Marshall	1876
Specimen mounter	Miss A. Fitch	1894
Honorary Keeper, Jodrell Labora- tory.....	Dukinfield Henry Scott, F.R.S., M.A., Ph.D., F.L.S.	1892
Curator of Museums	John Reader Jackson, A.L.S.	1858
Assistant (Museum)	John Masters Hillier	1879
Preparer	George Badderly	1880
Curator of the Gardens	George Nicholson, A.L.S.	1873
Assistant-Curator	William Watson	1879
Foremen:—		
Arboretum	William J. Bean	1883*
Greenhouse and Ornamental Department	Frank Garrett	1886
Temperate House (Sub-tropical Department).....	Thomas Jones	1888*
Herbaceous Department	Walter Irving	1890*
Storekeeper	George Dear	1884
Packer	William Crisp	1875
Assistant Clerk of the Works	J. Allen	1879

* Entered as a young gardener.

SUB-FOREMEN.

<i>Name.</i>	<i>Department.</i>	<i>Entered Kew Service.</i>	<i>Previous Situation.</i>
Browne, John M.	Label Writer ..	Oct. 1891..	Clonard, Dundrum, Dublin, S.
Cave, George H.	Propagating Pits.	Jan. 1894..	Studley Castle, Warwick.
Clark, John	Seed Collector ..	Mar. 1894..	Hillingdon Nurseries, Uxbridge.
Dallimore, William.	Arboretum	Feb. 1891..	Calveley Hall, Tarporley.
French, William B.	Palm House	Sept. 1891..	Pendell Court, Bletchingley.
Miles, John W.	Decorative Dept. (Inside).	July 1891..	Sussex Horticultural Co.
Negus, Ernest E.	Decorative Dept. (Outside).	Feb. 1893..	Pennell & Sons, Lincoln.
Newsham, John C.	Ferrieries	Feb. 1892..	Reid & Bornemann, Sydenham.
Walters, William.	Orchids	Feb. 1894 ..	Low & Co., Clapton.

GARDENERS.

<i>Name.</i>	<i>Entered Kew Service.</i>	<i>Previous Situation.</i>
Abbott, James M.	Nov. 1894..	Brathy Hall, Ambleside.
Armstrong, Robert ..	Oct. 1895..	Rose Hill, Carlisle.
Auton, William J.	Feb. 1895..	Syon House, Brentford.
Bass, Edward.	Nov. 1888..	Trained at Kew.
Bean, George J.	Mar. 1895..	Round Oak, Egham.
Berryman, Charles ..	Aug. 1894..	Trewidden, Penzance.
Candler, Thomas H. ..	Dec. 1895..	The Whins, Alderley Edge.
Dyson, William.	July 1895..	Cambridge Bot. Gardens.
Frankland, Arthur.	Oct. 1895..	Willowfield, Halifax.
Gaut, Robert C.	May 1896..	Berwick Hall, Shrewsbury.
Gray, Patrick J.	Dec. 1895..	Newnham Paddox, Lutterworth.
Gullick, William F. ..	Mar. 1896..	Halton, Tring.
Hales, William.	June 1895..	Birmingham Bot. Gardens.
Hammarberg, Lars M.	May 1895..	Berwick Hall, Shrewsbury.
Harris, Thomas J.	July 1895..	Kirtlington Gardens, Oxford.
Holland, John H.	Oct. 1894..	Rocklands, Thornton Hough.
Hunt, Robert.	Nov. 1895..	Chatsworth.
Hutchings, William H.	Oct. 1894..	Sander's, St. Alban's.
Johnson, William H. .	Apr. 1896..	Hatfield.
Jones, John.	Feb. 1896..	Dale Gardens, Chester.
Junod, Samuel.	Sept. 1895..	Hawkins and Bennet, Twickenham.
Lange, Axel.	June 1895..	Low's Nurseries, Enfield.
Lawton, Charles P. ..	Sept. 1894..	Weston House, Brough.
Mallett, George B. ..	Oct. 1894..	Holmewood, Ipswich.
Mark, Frank M.	June 1895..	Turner's Nurseries, Slough.
Martin, Thomas H. ..	Mar. 1889..	Trained at Kew.
Nelson, Thomas.	May 1896..	Hawick Gardens, Northumberland.
Nicholls, Matthew.	Jan. 1896..	Tolivan, Redruth.
Pynaert, Léon.	Feb. 1896..	Veitch's Nurseries, Chelsea.
Rayner, Thomas C. ..	Apr. 1895..	Anderson's Nursery, Teddington.
Rourke, James.	Mar. 1894..	Glasnevin Bot. Gardens.
Sharp, William.	Oct. 1895..	Wichnor Park, Staffs.
Tannock, David.	Mar. 1896..	Ralston House, Paisley.
Thorpe, William.	Apr. 1896..	Cambridge Bot. Gardens.
Turner, Samuel.	Sept. 1895..	Mossley Park, Manchester.

WOMEN GARDENERS.

Gulvin, Annie M.	Jan. 1896..	Swanley Hort. College.
Hutchins, Alice.	Jan. 1896..	Swanley Hort. College.

OLD KEWITES.

<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.	
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 ..	Hyde Park, W.
Arksey, Thomas.	Dec. 1870 ..	Went to United States.
Armstrong, James.	Mar. 1893.	
Armstrong, Thomas.	Aug. 1850 ..	N., Moorville, Carlisle.

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