

1907.

(SECOND SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

BOTANIC GARDENS AND GOVERNMENT DOMAINS.

(REPORT FOR THE YEAR 1906.)

Printed under No. 1 Report from Printing Committee, 30 October, 1907.

The Director of Botanic Gardens to The Under Secretary,
Chief Secretary's Department.

Sir,

Botanic Gardens, Sydney, 1 August, 1907.

I have the honor to submit the Annual Report of my Sub-Department for the year 1906. I have nothing of a sensational character to report. Endeavour has been made to maintain the balance of securing that the people have their parks and pleasure gardens in as high a state of development as the funds appropriated by Parliament will permit, while the scientific operations of the Botanic Gardens, and of its appanage the National Herbarium, are continued at that high standard which the State requires in a national establishment of this kind.

I have, &c.,

J. H. MAIDEN,

Director of Botanic Gardens, &c., and Officer-in-Charge, Centennial Park.

CONTENTS OF REPORT.

Botanic Gardens.

Arrangement ground.	Refreshment-room.
Grouping of plants.	The telephone.
Lawns and flower-beds.	Time Recorder.
The Main Native Flower Plantation.	Formation of a Gardeners' Circulating
Rockery.	Library
Music.	Changes in the Staff.
Creeks and ponds.	Correspondence.
Water Supply.	Departments of Agriculture and Forests.
Weather.	Garden plants.
Starlings.	Seeds received and despatched.
Roads and paths.	Living plants received and despatched.
Plant-houses.	" distributed.
Other buildings.	Exchanges.
Sydney and the first Wardian cases.	Aviary.

National Herbarium and Botanical Museum.

Lichens.	Publications by the Director and Staff.
Algæ.	Water Hyacinth
Fungi.	Material supplied for chemical research.
Work of the Artist.	The late Mr. Charles Moore.
Botanical Survey of the State:—	National Herbarium—
New South Wales species, desiderata for the	Specimens presented.
Herbarium.	" purchased.
List of species described in New South Wales	" exchanged.
during 1906.	Botanical Museum—
List of Botanical papers published in New South	Specimens presented.
Wales during 1906.	" purchased.
International Botanical Congress.	" exchanged.

Library.

Publications acquired by gift and purchase.

Government Domains.

Amusements—Gymnasium.	Government swimming bath.
Music.	Art Gallery.
Band Stand.	Mitchell Library.
Roads.	Buildings.
Seats, fencing, painting.	Refreshment kiosk.
Trees—Plantations.	Depasturing stock.
Pruning and removal of trees.	Offences.
Grass.	Dawes' Point Reserve.
Light.	Central Railway Station.

Garden Palace Grounds.

Top-dressing lawns.	Cleaning water-mains.
Opuntia plantation.	Indigenous plant border.
Asphalting and tar-painting walks.	Miscellaneous work.

Centennial Park.

Weather.	Thinning out of Pines.
Tree-planting.	Plants stolen.
Native flower plantation.	Impoundings, prosecutions, &c.
Roads and paths—abandonment of the use	Music.
of residual oil.	Painting of Reservoir.
The Ride.	

State Nursery, Campbelltown.

The weather.	Arboretum.
Distribution of plants.	Seeds, &c., received.
Buildings, repairs, &c.	Changes in the Staff.

Government House Grounds.

"Cranbrook," Rose Bay.

Admiralty House, North Sydney.

"Hill View," Sutton Forest.

BOTANIC GARDENS.

(MR. GEORGE HARWOOD, Superintendent.)

WE do not have turnstiles at the entrances, but I believe it to be a fact that a greater number of people visited the Gardens during 1906 than during any previous year.

Arrangement Ground.—The portion of the Arrangement Ground that was in progress last year has been completed. The soil was raised, the ground laid out into beds, and planted with the undermentioned Families of plants:—

Acanthaceæ.	Chenopodiaceæ.	Oleaceæ.	Ranunculaceæ.
Amarantaceæ.	Cistaceæ.	Onagrariaceæ.	Rosaceæ.
Araliaceæ.	Coniferæ and Taxaceæ.	Passifloraceæ.	Sterculiaceæ.
Asclepiadaceæ.	Geraniaceæ.	Polemoniaceæ.	Thymeliaceæ.
Bignoniaceæ.	Lythraniaceæ.	Polygalaceæ.	Tiliaceæ.
Caryophyllaceæ.	Myrtaceæ.	Polygonaceæ.	Verbenaceæ.

If this list be added to those given in the Reports for 1903, 1904, and 1905, it will be seen that a large number of beds are specially devoted to Families of plants for the use of students.

Grouping of Plants.—In accordance with the promise given in my last year's Report to state some of the principal groups of plants now in the Gardens, irrespective of the Arrangement Ground, in which, of course, the plants are specially arranged, I may cite the following:—

Coniferæ.—L. 7. In addition to the new bed of Coniferæ in the Arrangement Ground, a lawn (originally the Arboretum) has been carefully gone over; unsightly plants have been removed, new plants have taken the place of the old, nomenclature has been revised, and a new aspect of things has taken place. But owing to their size and to their value for scenic display, individuals of this group of plants are to be found all over the Gardens, including some very fine specimens indeed, especially *Araucaria*, *Agathis* and *Prumnopitys*.

Palmaceæ.—An additional group of hardy palms, in M. 19. These are intended to supplement our already extensive collection of these very popular plants, growing in M. 20. Many of them are but in the experimental stage, and will prove of educational value as to the kinds most suited to outdoor work.

Amaryllideæ.—Agaves, popularly known as "American Aloes," are grouped in L. 32, and 24. They grow and flower freely, and there is scarcely any period in the year that one or more plants of this genus is not in flower.

Liliaceæ.—Yuccas or "Adam's Needles," as they are commonly called, are grouped in a triangular bed (L. 1a.) They are a very characteristic group of plants, and, during their flowering period, are very handsome. They are for the most part natives of North and South America. Our Sydney climate is evidently well suited to their proper development.

Araliaceæ.—M. 15, comprises a large assortment of Araliads. They include *Aralia quinquefolia*, Dene: and Pl. *Schefflera stellata*, Harms., and the very common *Heptapleurum venulosum*, Seem., which shows off to advantage. The former, though closely allied, and for long confounded with the latter, seeds profusely. *Pseudopanax*, *Trevesia*, *Meryta*, *Brassaia*, *Cussonia*, *Dizygotheca*, *Fatsia*, and other well-known genera are well represented.

Berberidaceæ.—U. 2, represented by the "Barberry," *Berberis vulgaris*, and many other plants of this genus.

Cactaceæ.—Some extensive additions have been made, notably of *Echinocactus* and *Mamillaria*. Special soil and position have done much in the successful introduction of many of these very peculiar and interesting genera. A few losses have occurred, mainly through the many inconveniences they are subject to before becoming acclimatised to our seasons. They are growing in special beds (U. 2), and form a very interesting addition to our collection of succulents.

Magnoliaceæ has a fair representation in M. 1. *Michelia Champaca*, L. and the well-known "Port Wine Magnolia," *Magnolia fuscata*, Andr., also *Illicium anisatum*, the "Star Anise," and *Magnolia grandiflora*, Linn., are pleasing objects of this very handsome and sweet-scented genus.

Oleaceæ.—Various genera of this family are growing in U. 10, i.e., *Syringa*, *Olea*, *Phillyrea*, &c.

Solanaceæ.—In M. 27, this family is represented by the well-known *Cestrums*, *Juanulloa*, *Iochroma*, *Datura*, *Cyphomandra*, and a host of others.

Ternstromiaceæ is represented in U. 5, by a fine assortment of Camellias. They are exceedingly popular flowers in Sydney during the early Spring, as they flower freely and are well suited climatically and otherwise. *Cleyeria japonica* and *Gordonia anomala* are also represented but do not thrive. Evidently our hot dry summer is too severe.

Economic Plants such as "Carambola," *Averrhoa Carambola*, L.; "Bilimbing," *Averrhoa Bilimbi*, L.; *Cecropia peltata*, L.; "Bitter Cassava," *Manihot utilissima*, Pohl.; "Ceara Rubber," *Manihot Glaziovii*, Muell. Arg.; "Cocoa," *Theobroma Cacao*, Linn.; "Jack Fruit," *Artocarpus integrifolia*, L., &c., are growing in various places in the Gardens most suited to their natural requirements. Some are new, others have hitherto failed.

Medicinal plants, or those reputed to be such, are grouped in a separate bed, and include such plants as *Atropa Belladonna*, "Deadly Nightshade"; "Wormwoods" in variety; "Hyssop," "Henbane," "Aconite," "Rue," "Henlock," "Angelica," "Loosestrife," "Clary," "Savin," and a host of old-fashioned herbs. They are growing in L. 9, and others in Economic Bed (M. 18).

Lawns and Flower Beds.—A few minor alterations to lawns and flower beds have been made during the year. About 300 loads of good soil have been obtained by purchase and stacked. This will be reserved for potting, and for improving flower beds, &c.

The

The Main Native Flower Plantation.—This adjoins the Federal Government House Grounds and consists of three contiguous borders, 6 yards wide, separated from each other by two narrow paths. Thus the south border is 170 yards long, the middle border 163 yards, and the north border 110 yards, making a practically continuous border of 443 yards, say a quarter of a mile. It is stocked with hundreds of species of herbs and shrubs, with a sprinkling of trees. From January to December a few species may always be seen in flower; while for the greater part of the year the border is gay with flowers. It affords an object lesson in regard to our beautiful flora that visitors are quick to appreciate. Almost every day I am in town I visit it and am able to say that two things are worthy of note, the continuousness of flowering of some species, and the floriferousness of some much exceeding what we usually observe in the same species in the bush.

Rockery.—Preparations are being made to deal with the rocks at the bottom of the steps at the back of Victoria Lodge, it being contemplated not only to alter the unimproved state of this area, but also to establish a fernery at this spot.

Music.—The Royal Australian Artillery Band played on eighteen Wednesday afternoons, and the New South Wales Police Band on two Friday afternoons, during the year.

Creeks and Ponds.—The creek was again cleaned during the year, and the soil utilised for raising flower beds and for top-dressing lawns.

A portion of the creek embankments has been built up with stone, one additional section being dealt with in this way during the year.

Water Supply.—Three extensions to water reticulations have been made during the year, viz., one at U. 5, one at L. 21, and one at L. 30.

Weather.—With reference to the cyclone referred to under Outer Domain, p. 26, and Garden Palace Grounds, p. 28, the Botanic Gardens escaped almost without injury, only one tree, a *Quercus pedunculata*, in the Upper Garden, being seriously injured.

Starlings.—During the last few years the starlings have increased in the Botanic Gardens from a pair to hundreds of pairs, indeed they are becoming a pest. In the Centennial Park they are a pest also, so that steps for their repression are under consideration.

Roads and paths.—Several walks both in the Upper and Lower Gardens have been regravelled.

Plant Houses.—We badly need additional accommodation. It may be useful to give a list of our present glass houses. Following are outside measurements :—

Name of house.	Length.	Breadth.	Height at sides.	From floor to ridge.	Remarks.
	ft. in.	ft. in.	ft. in.	ft. in.	
Mort house (hot-house) ...	32 6	18 0	7 0	11 0	Presented by the late Mr. T. S. Mort. Hot-house.
Propagating house No. 1 ...	28 6	12 0	4 6	7 6	
„ „ No. 2 ...	40 6	12 6	5 6	8 6	„
Greenhouse No. 1 ...	27 0	18 0	6 0	10 0	Hot-house. Nos. 1, 2, and 3 are identical.
„ „ No. 2 ...	22 0	15 6	6 0	9 0	
Palm house ...	60 0	26 6	8 0	14 0	
Hot-house No. 1 ...	40 0	20 0	8 0	12 6	Hot-house ; no wood used in its construction ; low pitch of roof ; very large panes.
„ „ No. 2 ...	40 0	20 0	8 0	12 6	
„ „ No. 3 ...	40 0	20 0	8 0	12 6	
Orchid house ...	40 0	14 0	6 0	9 0	

Other buildings.—The thatched roof of the summer house in the east part of the garden has been replaced with redwood shingles and eaves, gutter and down-pipe, fixed in June. A great improvement in the appearance and usefulness of the structure has thus been effected.

Sydney and the first Wardian Cases.—In July I published the following letter in the Sydney newspapers :

“Nathanael Bagshaw Ward, F.R.S., a distinguished microscopist and member of the Society of Apothecaries, London, invented the closely-glazed cases which we all know as “Wardian cases,” and which have revolutionised the transit of plants over long distances. In order to prove his invention, Mr. Ward made a number of shipments of plants. You will be interested to learn that the first of these shipments was made in the beginning of June, 1833, when two cases filled with ferns, grasses, &c., were sent to these Gardens in charge of Captain Charles Mallard, R.N. The connection of this establishment with this simple and far-reaching invention is quite new to me, and may be new to many of your readers.”

The following was the result :—

Sir,

Sydney, January 18th, 1834.

I have the happiness to inform you that the plants contained in the two glazed cases entrusted to my care were landed at the Botanical Garden about three weeks ago, nearly the whole of them alive and flourishing. They have since been transplanted by Mr. McLean, who has charge of the Garden in the absence of Mr. Cunningham (gone to New Zealand botanising), and all are doing well.

The complete success of your interesting experiment has been decidedly proved, and whilst offering you my congratulations upon this agreeable result, I cannot but feel some degree of pride and pleasure in having been the instrument selected to put to the proof so important a discovery to the botanical world.

I am, Sir, &c., &c.,
(Sd.) CHARLES MALLARD.

To N. B. Ward, Esq.

Refreshment

Refreshment-room.—Mrs. Mather secured a lease of these premises by public tender, and entered into possession on 16th April.

Better accommodation has been provided for visitors, certain structural alterations having been carried out by the Government Architect. The building, both interior and exterior, has been renovated, and is altogether much improved.

The Telephone.—A telephone bureau for the convenience of the public has been installed close to the door of the Refreshment-room. Its existence is not well known at present, but I feel sure it will be a great boon as time rolls on.

Time Recorder.—A month's trial was given to a Rochester Time Recorder for checking the time of the staff, but it did not meet our special requirements, much time being lost in making long journeys to the machine.

Formation of a Gardeners' Circulating Library.—Most of the books and pamphlets on horticultural and agricultural subjects have been arranged in a special book-case, and regulations have been made under which the staff can obtain access to them when they are not on duty, or they can borrow the publications for week ends and other brief periods. The regulations are as liberal as our circumstances permit at present, and I look forward to the time when the staff will have a reading room of their own, and a lecture room, where lectures can be given to them on subjects pertaining to their work.

Changes in the Staff.—H. G. White, gardener, was promoted to be Superintendent, Viticultural Station, Howlong. W. Challis was promoted vice H. G. White.

M. McCorquodale, gardener, who was seriously injured in a tramway accident, was absent on sick leave for nine months, after which he was retired from the Public Service.

J. Senior, gardener, retired through old age.

W. Cuthbertson was appointed temporary Herbarium boy.

Alexander Grant died on Christmas Day after an illness of six months (see p. 11).

Correspondence.

Subject.	No.	Increase.
Letters registered	6,626	830
„ despatched	3,772	463
Postcards „	434	14
Parcels „	140	67
Departmental orders despatched	381	45
Requisitions through the Stores Supply and Tender Board, and Government Printer	271	27

The work is increasing at a very rapid rate and it is not easy to cope with it with our present staff.

Departments of Agriculture and Forestry.—My work as Government Botanist, carried out for these two Departments, is detailed in my annual reports to them. Miss A. M. Jenner has continued to carry out, to my entire satisfaction, the clerical duties incidental to my work as Government Botanist.

Garden Plants.—The following plants, new or of more or less interest to us, have been under special notice during the year. Most of them have done well with us.

DICOTYLEDONS.

Acanthaceæ—

1. *Ruellia portella*, Hook. f., Brazil. Slender branched tender species having soft, rather ornamental foliage. It is also a profuse autumn-blooming plant. Flowers, rose-pink.

Arabiaceæ—

2. *Panax arboreum*, Forst., New Zealand. The plant continues to do well.

Asclepiadaceæ—

3. *Aravujia grandiflora*, Benth., Brazil. A climber with clusters of white flowers. Although it is a tender plant, it thrives best when planted in favourable situations in the open ground.

Crassulaceæ—

4. *Crassula glomerata*, Berg., Africa. A desirable rockery plant.

Cupuliferæ—

5. *Fagus sylvatica*, Linn., var. *heterophylla*, garden form of the well-known *Fagus* or “Beech.” The species is a native of Europe, &c. The variety in question is figured in Loudon's *Encyclopedia of Trees*, 906, ff. 1692–3. It is of recent introduction into the Gardens, and is doing well.

Ericaceæ—

6. *Clethra alnifolia*, Linn., “Sweet Pepper Bush,” North America. A plant that is slow growing in our Sydney climate, is very handsome, well suited for southern localities.
7. *Gaultheria Shallon*, Pursh. “Shallon.” *Bot. Mag.*, t. 2843., North America. Another plant suitable for growing in moist cool districts. It is a native of North-west United States, America, and unsuitable for the Sydney climate; a very handsome plant.
3. *Leucothoe axillaris*, D. Don. (*Andromeda*), *Bot. Mag.*, t. 2357, North America. Better known as *Andromeda axillaris*. It does better than any of its congeners, owing to its belonging more to the Southern States than *Gaultherias*. But a cooler locality would be better for it. It is a very handsome plant, reminding one of a miniature *Arbutus*.
9. *Pieris japonica*, D. Don. *Gard. Chron.* (1882), xvii, 796, f. 120, Japan.
10. *Pieris phillyreaefolia*, DC., North America. Both of these plants are old garden favourites, popularly known as *Andromedas*, but owing to the dry conditions of Sydney during summer months, they do not do well.
11. *Zenobia speciosa*, var. *pulverulenta*, *Gard. Chron.* (1890), viii, 612, f. 100. Also known as *Andromeda*; but like most of the *Ericaceæ* does not do too well.

Gesneriaceæ—

MONOCOTYLEDONS.

Amaryllidaceæ—

35. *Crinum erubescens*, Ait., *Bot. Mag.*, t. 1232.
 36. " " var. *minus*. (*C. Roozenianum*, O'Brien).
 37. " *giganteum*, Andr., *Bot. Mag.*, t. 923., Tropical Africa.
 38. " *Kirkii*, Baker, *Bot. Mag.*, t. 6502, Zanzibar.
 39. " *latifolium*, Linn.
 40. " " var. *yemense*.

All the above *Crinums* have done remarkably well during the past season, growing and flowering profusely. Each species has a special merit of its own. They are variously coloured from pale yellow to white and pink; immense umbels of flowers, and beautifully scented.

Jommelinaceæ—

41. *Commelina nudiflora*, Linn., Tropical Regions. Small trailing plant with blue flowers.

Iridaceæ—

42. *Freesia Armstrongii*. Flowers of this species are much darker than the popular *F. odorata*.
 43. *Iris unguicularis*, Poir., var. *Elizabethæ*. A dwarf form of the well-known Fleur de Lys. It does not thrive so well as might be expected, owing to our comparatively dry conditions.
 44. *Romulea ramiflora*, Ten., var. *Parlatorei*. A very free flowering bulb, but if permitted would become a pest, owing to its seeding freely—much after the fashion of the common "Yam," *R. rosea*, so familiar to children.

Liliaceæ—

45. *Camassia Fraseri*, Torr., North America. Another important addition to our Liliaceous plants. It is a native of North America, and in spite of our usual hot summer weather seems to thrive and flower freely.
 46. *Eucomis amaryllidifolia*, Baker, South Africa. It is often confused in Sydney with *E. undulata*, but distinct in the large Amaryllis-like foliage and other minor differences. It does well either planted in Cape bulb beds or in the rockery.
 47. *Muscari commutatum*, Guss. (*M. Strangwaisii*, Klotschy), Arizona. A very pretty "Grape Hyacinth" of recent introduction.

Orchidaceæ—

48. *Cattleya Bowringiana*, Veitch, British Honduras. A robust grower, producing large racemes of rose-purple flowers; lip deep purple with white lines in the throat.
 49. *Cattleya guttata*, var. *Leopoldi*, Linden, Brazil. A well-grown specimen will send up fifteen to twenty flowers from one peduncle. Sepals and petals reddish-brown spotted with purple; lip amethyst.
 50. *Cattleya guttata*, var. *Prinzi*, Brazil. Sepals and petals yellowish-white suffused with rose-purple; lip amethyst. A strong grower.
 51. *Cattleya labiata*, var. *Percivaliana*, Venezuela. Flowers, pale magenta-rose; lip deep magenta with orange throat.
 52. *Lælia harpophylla*, Rchb., f., Brazil. Comparatively small flowers, orange-vermilion, very attractive.
 53. *Lælia Jongheana*, Rchb., f., Brazil. Flowers bright amethyst; lip edged rose with yellow throat.
 54. *Phalænopsis leucorrhoda*, Rchb., Eastern Archipelago. Resembling *P. Schilleriana* in foliage; sepals and petals white with a blush of rose at their base; lip white and yellow, dotted magenta.
 55. *Satyrium corifolium*, Sw., South Africa. One of the few terrestrial orchids that will flourish in the open border. It produces yellow flowers continuously for several weeks.
 56. *Vanda Sanderiana*, Rchb., f., Philippines. A remarkably fine flowering species, requiring a humid stove temperature.

Scitamineæ—

57. *Curcuma australasica*, Hook., f., Queensland. It is a native of the hotter parts of the Commonwealth, e.g., North Queensland. It has much the appearance of the Ginger or Canna in foliage, but as it flowers close to the ground, between the leaves, the very peculiar and interesting spike of flowers is not readily seen. It dies down every winter in Sydney, but comes up with redoubled energy in the following spring, growing and flowering during the warm weather.

SEEDS RECEIVED AND DESPATCHED.

Botanic Gardens.

Received.

Amsterdam, Holland.
 Antwerp, Belgium.
 Bangalore, India
 Baroda, India.
 Berlin, Germany.
 Bonn, Germany.
 Brisbane, Queensland.
 Budapest, Hungary.
 Cape Town, S. Africa.
 Catania, Sicily.
 Christiania, Norway.
 Copenhagen, Denmark.
 Cracow, Austria.
 Dresden, Germany.
 Edinburgh Scotland.
 Erlangen, Bavaria.
 Glasnevin, Dublin, Ireland.
 Gottingen, Germany.
 Griefswald, Germany.
 Groningen, Holland.
 Hamburg, Germany.
 Jamaica, W. Indies.
 Karlsruhe, Germany.
 Kew, England.
 Lemburg, Austria.
 Leyden, Holland.
 Liege, Belgium.

Lyons, France (City).
 Do (Faculté de Médecine).
 Madrid, Spain.
 Melbourne, Victoria.
 Montpellier, France.
 Munich, Bavaria.
 Odessa, Russia.
 Palermo, Sicily.
 Prague, Austria.
 Rockhampton, Queensland.
 Rome, Italy.
 Saharanpur, India.
 Sibpur, near Calcutta, India.
 Siena, Italy.
 Singapore, Straits Settlements.
 Stockholm, Sweden.
 St. Louis, Mo., U.S.A.
 St. Petersburg, Russia.
 Tiflis, Caucasus, Russia.
 Tokyo, Japan.
 Tours, France.
 Utrecht, Holland.
 Vienna, Austria.
 Villa Thuret, Antibes, France.
 Wurzburg, Germany.
 Zurich, Switzerland.

Despatched.

Despatched.

Adelaide, South Australia
 Amsterdam, Holland.
 Antwerp, Belgium.
 Bangalore, India.
 Baroda, India.
 Berlin, Germany.
 Bonn, Germany.
 Breslau, Germany.
 Brisbane, Queensland.
 Brunswick, Germany.
 Brussels, Belgium.
 Budapest, Hungary.
 Cambridge, England.
 Catania, Sicily.
 Christiania, Norway.
 Cologne, Germany.
 Copenhagen, Denmark.
 Cracow, Austria.
 Delhi, India.
 Dresden, Germany.
 Durban, Natal.
 Erlangen, Bavaria.
 Floriana, Malta.
 Freiburg, i. B., Germany.
 Glasnevin, Dublin, Ireland.
 Gorlitz, Germany.
 Gottingen, Germany.
 Groningen, Holland.
 Hamburg, Germany.
 Heidelberg, Germany.
 Hobart, Tasmania.
 Hong Kong.
 Jamaica, West Indies.
 Jurjew (Dorpat), Russia.

Kew, England.
 Liege, Belgium.
 Leyden, Holland.
 Madras, India.
 Melbourne, Victoria.
 Middelburg, Holland.
 Montpellier, France.
 Nantes, France.
 Naples, Italy.
 Odessa, Russia.
 Palermo, Sicily.
 Prague, Austria.
 Rockhampton, Queensland.
 Rome, Italy.
 Rouen, France.
 Saharanpur, India.
 San Francisco, California.
 Sibpur, near Calcutta, India.
 Siena, Italy.
 Singapore, Straits Settlements.
 Stockholm, Sweden.
 St. Louis, Missouri, U.S.A.
 St. Petersburg, Russia.
 Suva, Fiji.
 Tiflis, Caucasus, Russia.
 Tokyo, Japan.
 Trieste, Austria.
 Tübingen, Germany.
 Upsala, Sweden.
 Utrecht, Holland.
 Vienna, Austria.
 Würzburg, Germany.
 Zurich, Switzerland.

Other Botanical Establishments.*Received.*

Adelaide, Conservator of Forests.
 Arnold Arboretum, Jamaica Plain, U.S.A.
 Bruxelles, Etat Indépendant du Congo.
 Clara Leigh Dwight Gardens, South Hadley, Mass., U.S.A.
 Coolabah Experimental Farm.
 Davy, J. Burt, Pretoria, Transvaal.
 Gosford State Nursery.
 Jamaica, West Indies, Botanical Department.

Kirk, Prof. T. W., Department of Agriculture, Wellington, N.Z.
 Pacific Coast Laboratory and Garden.
 Paris, Muséum d'Histoire Naturelle.
 Pretoria, Transvaal, Department of Agriculture.
 Syzran-Wiazma, Russia, Bureau d'Acclimatation Novospasskoe.
 Santiago, Cuba, Estacion Central Agronomica.
 Trinidad, West Indies, Department of Agriculture.
 Washington, U.S.A., Department of Agriculture.

Despatched.

Arizona, U.S.A., Agricultural Experiment Station.
 Berkeley, California, Department of Botany.
 Coolabah Experimental Farm.
 Gosford State Nursery.
 Hawkesbury Agricultural College.
 Madras, India, Department of Agriculture.
 Melbourne, Victoria, Department of Agriculture.
 Moree, Experimental Farm.
 Paris, France, Muséum d'Histoire Naturelle.
 Pretoria, Transvaal, Department of Agriculture.

Saigon, Cochinchina, Department of Agriculture.
 Sydney, Department of Agriculture.
 Sydney, Hyde Park.
 Strasburger, Prof., Bonn, Germany.
 Syzran-Wiazma, Russia, Bureau d'Acclimatation Novospasskoe.
 Trinidad, West Indies, Botanical Department.
 Wagga Wagga Experimental Farm.
 Washington, U.S.A., Department of Agriculture.
 Wollongbar Experimental Farm.

FIRMS AND PRIVATE INDIVIDUALS.*Received.*

Bell, M., National Park.
 Bradley, H. H., Margaret-street, Sydney.
 Buysmann, Dr., Middelburg, Holland.
 Campbell, D. W., Geological Survey, Perth, W.A.
 Carruthers, Hon. J. H., Sydney.
 Crawford, A. R., Moona Plain, N.S.W.
 Damman & Co., Naples, Italy.
 Docker, His Honor Judge, Sydney.
 Ford, Miss, Granville.
 Franceschi, Dr., Santa Barbara, Cal.
 Greaves, W. H. B., Bondi.
 Hanbury, Chev. Sir Thomas, The Gardens, La Mortola, Ventimiglia, Italy.
 Herb, M., Naples, Italy.

Horton & Co., Sydney.
 Howard, E. W., Marion, South Australia.
 Howell, M., Mount Victoria.
 Kimberley, C. O., Rookwood.
 Levers' Pacific Plantation, Ltd., Sydney.
 Norton, Miss, Double Bay.
 Porter, H. M., Bathurst-street, Woollahra.
 Proschowsky, A. R., Nice, France.
 Sprenger, C., Vomero, Italy.
 Stuart, Prof. Anderson, Sydney.
 Thomson, E. Deas., Elizabeth Bay.
 Webster, L. C., Australasian Club, Edinburgh.
 Yates & Co., Sussex-street, Sydney.
 Young, J., Annandale.

Despatched.

Bertie, R. D., Karella-road, Cremorne.
 Blackburne, J., Maryborough, Victoria.
 Brown, A., Minambah, New South Wales.
 Brown, Prof. J., Holmbank, Fendalton, Christchurch, N.Z.
 Browne, S., Whittingham, New South Wales.
 Burrundullah Public School.
 Carter, Jas., Kyogle Nursery, Kyogle.
 Cooke, Prof. N. C., Chapel Hill, North Carolina, U.S.A.
 Hanbury, Chev. Sir Thomas, Ventimiglia, Italy.
 Hill, T. G. St. Thomas's Hospital, London.
 Holton, E. R., American Mission House, Manamadurai, S. India.
 Lahuen, Prof., Bremen, Germany.
 Langheim, H. W., Office of Board of Health, Dumagusta, Philippine Islands.

Leavitt, Prof. R. G., North Easton, Mass., U.S.A.
 Marshall, G., Santa Rosa, New Mexico.
 O'Reilly, Miss, 39, Shot-street, Jamaica Plain, Boston, U.S.A.
 Pfummers, C., Algiers.
 Purkiss, H., The Mount, Guy Fawkes.
 Smith, Miss, 52, York-terrace, Regent's Park, London.
 Smith, Rev. W. I. Carr, 164, Phillip-street, Sydney.
 Sprenger, C., Vomero, Italy.
 Sutor, Mr., Commercial Agent in Japan for New South Wales.
 Tibbitts, W., 300, Liverpool-street, Darlinghurst.
 Volckers, H. A., Grafton.
 Woodford, C. M., Solomon Islands.
 Yates & Co., Sussex-street, Sydney.

LIVING PLANTS RECEIVED AND DESPATCHED.

Received.

Alberthsen, R. S., Stanmore.
 Allen, A. N., Mosman.
 Bathgate, A., Dunedin, N. Z.
 Bell, M., National Park.
 Callaghan, W., Elizabeth Bay.
 Chatterjee, S. P., Calcutta, India.
 Coolabah Experimental Farm.
 Dixon, Hugh, Summer Hill.
 Dun, W. S., Department of Mines, Sydney.
 Gregson, Jesse, Mt. Wilson.
 Heine, Carl, Ebon, Marshall Islands.
 Knox, A., 161, Phillip-street, Sydney.
 Levers' Pacific Plantation, Ltd., Sydney.

Mackay, Hon. Col., Randwick.
 Maclaurin, Dr. C., Bayswater-road, Sydney
 Melbourne Botanic Gardens.
 Morrison, Dr. A., Department of Agriculture, Perth, W. A.
 Pearce Bros, Sydney Arcade.
 Raine, Mr, Double Bay.
 Sydney Zoological Gardens.
 Vigoureux, M., Correspondant du Jardin Colonial de France,
 Sydney.
 Volckers, H. A., Grafton.
 Williams, F. C., H.M. "Prometheus."
 Yates & Co., Sussex-street, Sydney.

Despatched.

Alberthsen, R., Stanmore.
 Browne, S., Whittingham.
 Chatterjee, S. P., Calcutta, India.
 Condobolin Railway Station.
 Coolabah Experimental Farm.
 Dixon, Hugh, Summer Hill.
 Girilambone Railway Station.
 Gregson, Jesse, Mount Wilson.
 Hawkesbury Agricultural College.
 Jones, J. L., Sunny Corner.
 Lance, C. C., Strathfield.
 Levers' Pacific Plantations, Ltd.
 Marriana, G. H., Apollo Bay, Victoria.

Matte, Prof. H., Rennes, France.
 Moree Experimental Farm.
 Parliament House, Sydney.
 Parkes, Miss, Annandale.
 Smith, Mrs., Bayswater-road, Sydney.
 Sullivan, P. H., Sydney.
 Sydney Hospital.
 Thomson, E. Deas, Elizabeth Bay.
 Wagga Wagga Experimental Farm.
 Waite, E. C., The Museum, Christchurch, New Zealand.
 Yates & Co., Sussex-street, Sydney.
 Young, J., Annandale.

LIVING PLANTS DISTRIBUTED.

Institution.	Consignments.	Trees.	Shrubs.	Miscellaneous plants.
Public Schools	25	413	936	302
Railway Stations	3	18	24	50
Tramway Department	3	78	50	.....
Hospitals and Asylums	14	197	358	353
Police Stations and Prisons.....	3	50	36	48
Parks and Reserves	17	558	1,004	.....
Cemeteries	1	.....	100	.....
Colleges	3	76	108	224
Roman Catholic Convents	7	306	168	.....
" Churches	12	318	438	136
Churches of England	5	120	72	.....
Presbyterian	2	42	24	.....
Methodist	2	60	60	48
Water Supply and Sewerage Board	8	328	397	.....
Miscellaneous, including Schools of Arts, Parliament House, the Mint, and a few private persons by way of exchange or for experimental purposes	11	80	36	470
Total.....	116	2,644	3,811	1,631
Trees		2,644		
Shrubs			3,811	
Miscellaneous Plants				1,631
Grand total			8,086	

(See in addition the list of plants sent out specially, chiefly exchanges, and also list of plants sent direct from the State Nursery, Campbelltown, p. 3.)

EXCHANGE.

Toyer, J., George-street, Redfern, 200 *Cocos Weddelliana* for 100 Large Kentias.

AVIARY.

Deaths.

- | | |
|---|--|
| 3 Sulphur-crested cockatoos (<i>Cacatua galerita</i> , Lath.); Australia. | 1 Bantam cock (<i>Gallus domesticus</i> , L.); Europe |
| Song thrush (<i>Turdus musicus</i> , L.); Europe. | 1 Bantam hen (<i>Gallus domesticus</i> , L.); Europe. |
| 1 Peacock (<i>Pavo cristatus</i> , L.); India. | 1 Cross-bred pigeon (Nun). |
| 2 Spotted-sided finches (<i>Stagonopleura guttata</i> , Shaw); East and South-east Australia. | 1 Silver pheasant hen (<i>Gemnaeus nyctemerus</i> , Linn.); China. |
| 1 Spur-winged plover (<i>Lobivanellus lobatus</i> , Lath.); East and South-east Australia. | 3 Black swans (<i>Cygnus atrata</i> , Lath.); Australia. |
| 3 Gouldian finches (<i>Poephila mirabilis</i> , Thunb. and Jacq.); North and North-west Australia. | 1 Pennant's parrakeet (<i>Platycercus elegans</i> , Gmelin); Queensland. |
| 1 Dotterill quail (<i>Turnix varia</i> , Lath.); Australia. | 1 Wood pigeon. |
| 1 Mandarin duck (<i>Aix galericulata</i>); China. | 1 Wonga pigeon (<i>Leucosarcia picta</i> , L.); East and South-east Australia. |
| 1 Goldfinch (<i>Carduelis elegans</i> , Linn.); Europe. | 1 Warbling grass parrakeet (<i>Melopsittacus undulatus</i> , Shaw); Australia. |
| 1 Barraband parrakeet (<i>Polytelis Barrabandi</i> , Swainson); South-east Australia. | 1 Chestnut-breasted finch (<i>Donacicola castanea-thorax</i> , Gould.); North and East Australia. |
| 1 Indian runner drake | 1 Quail. |
| 3 Blue Java sparrows (<i>Munia orizava</i> , Linn.); Java. | 1 Latham's weaver bird (<i>Quelea quelea</i> , Linn.); Africa. |
| 1 White Java sparrow (<i>Munia orizava</i> , Linn.); Java. | 1 Crimson-crowned parrakeet (<i>Cyanoramphus Cooki</i> , Gray); Norfolk Island. |
| 1 Common pheasant cock (<i>Phasianus colchicus</i> , L.); Europe. | |

(These deaths include those of a number of wild birds unused to captivity, some of which survived the journey to the Gardens but a few days.)

Presented (dead) to the Trustees, Australian Museum.

1 Noumea Parrakeet.

Purchased.

2 Magpie Geese from North Queensland.

Presentations.

- | | |
|---|--|
| 1 Landrail. From Mrs. Hennessy, 203, Goulburn-street, Sydney. | 3 Cross-bred pigeons. From Mr. Kavanagh, Railway Station-master, Lewisham. |
| 1 Long-billed cockatoo (<i>Licmetis nasicus</i> , Temm.); North-east Australia. From J. L. Boorman, Leichhardt. | 2 Mooki pigeons. From Mr. Kavanagh, Railway Station-master, Lewisham. |
| 1 Pennant's parrakeet (<i>Platycercus elegans</i> , Gmelin); Queensland. From D. R. Cooper, 151, Stanmore-road, Petersham. | 2 Galahs (<i>Cacatua roseicapella</i> , Vieillot); N.S.W. From Mrs. S. W. Gurner, "Exeter," Woolwich. |
| 1 Pair black swans (<i>Cygnus atrata</i> , Linn.); Australia. From D. R. McCall, Secretary, Police Department, Sydney. | 5 Spotted-necked Indian doves. From Mrs. S. W. Gurner, "Exeter," Woolwich. |
| 2 Pennant's parrakeets. From F. R. Butler, 6, Rowe-street, Sydney. | |

NATIONAL HERBARIUM AND BOTANICAL MUSEUM.

(MR. E. BETCHE, Botanical Assistant.)

Mr. Betché reports as follows:—

"The Australian Herbarium increased last year through exchange and donation by 303 species; all West Australian plants except 50 desiderata from the Melbourne Herbarium (mostly types of Baron von Mueller), 18 species of Australian Halorrhagaceæ from the Berlin and Vienna Herbaria (mostly types of Prof. Schindler), 38 species of terrestrial orchids from South Australia and Victoria, and some other new and rare Victorian plants. The exchange and donations form by far the smallest part of the increase of the Australian Herbarium; the greatest number of specimens are added by the botanical explorations of the Director and Collector, and by the specimens sent daily for determination from all parts of this State, and more rarely from other Australian States. Some of the foresters and school-teachers, as well as amateur botanists unconnected with the Public Service, take great interest in the subject and send us numerous useful specimens, but others persist in sending worthless scraps; they accept the information asked for as their due, and will not take the trouble to give us good specimens in return for the information supplied. The extreme north-western part of this State brings us always something new on the rare occasions when we receive specimens from those remote regions. Some years ago we found two grasses unrecorded for New South Wales in a small lot of about a dozen grasses received from Yandama, and last year we received a larger collection from the same district, and found amongst them one species undescribed, and three new for New South Wales. A thorough botanical exploration of north-western New South Wales would give excellent results, but the distances are so great, the population so sparse, and travelling is so very expensive in those parts, and useless in all but one of the rare good seasons, that it will take many years before we can say we know the flora well.

"The Pacific Island Herbarium increased through exchange and donation by 350 species, chiefly old New Caledonian plants of Vieillard and recently collected plants from New Guinea and the New Hebrides; the most important acquisition being a collection of 48 of Dr. Schlechter's orchids from German New Guinea and New Caledonia, including many types. Prof. Casimir de Candolle determined our Pacific Island Meliaceæ, and described from them several new species from Samoa and the New Hebrides, collected by Dr. Funk of Apia, and by Mr. Quaife of Sydney.

"The number of specimens added last year to the Exotic Herbarium is 3,500, the most important of 123 which are:—1,215 numbers of E. D. Merrill's Philippine plants, 667 numbers of C. F. Baker's Cuba plants, numbers of Dr. Schlechter's South-west African plants, and 28 species from Christmas Island. The rest are plants from Singapore and Calcutta, from the Cape Colony and Natal, from Canada and the Northern United States, from Chili and the Argentine Republic, Kneucker's Gramineæ and Cariceæ Exsiccatae, and Dr. Zahlbrückner's Cryptogamæ Exsiccatae, and lastly our own selected desiderata from the Catalogues of Leonhardt and Kaulfuss. A rational exchange with the two German botanical exchange clubs mentioned above is still not fully possible, because we completed only about a quarter of the catalogue of the Exotic Herbarium last year, and we cannot fully utilise the opportunities offered by these clubs till our catalogue is complete. We labour at present under the difficulty that we have fallen into arrear with both Museum and Herbarium work, and the clerical work connected with a large herbarium in an active state of exchange is so great that the staff can barely keep up with the current work. Fortunately we got last year the additional help of a second herbarium attendant, and as both technical assistants are intelligent young lads able to do more than merely mechanical work, it is hoped that we shall be able to complete the Exotic catalogue in 1907."

Lichens.—Mr. E. Chcel, in honorary charge of this section, reports as follows:—

"Mr. W. Craigie made a collection of 24 species from between the Basin on the Nepean and the junction of the Nepean and Warragamba Rivers, and also a collection of 16 species from Brogheda Station, Wybong, near Muswellbrook.

"Mr. J. L. Boorman has made several interesting collections, which may be briefly outlined as follows:—Nundle, 18 species; Shellharbour, 20 species; Dalmorton, 29 species; George's Creek, on the Macleay River, 21 species and varieties; Mount Hope, 2 species; Bateman's Bay, 15 species; Williams, Paterson, and Allyn Rivers, 11 species; Berrima, 10 species; Wyalong, 8 species.

"Mr. R. Mitchell gathered about 20 species from Bulli and the Cambewarra Mountains.

"Mr.

"Mr. W. Blakeley collected 5 species from Bowan Park, near Orange. Messrs. J. Thompson and W. Gardner, of Hurstville, have collected several species from Bateman's Bay, and from Round Swamp, Ogunbil, near Tamworth. Mr. J. W. Clay collected 12 species from Belmore Falls, Barrengarry, and Fitzroy Falls. Mr. W. Mervyn Carne sent me a rather interesting form of *Heterodea Muelleri*, Nyl., from Richmond. Mr. A. Green collected 3 species from Cranky's Creek, Meryla Vale, and Belmore Falls. Mr. A. Spencer Watts collected 5 species from Mount Kosciusko. Mr. W. D. Filmer, of Toronto, near Newcastle, has sent me 10 species collected from Clarence Town, Toronto, Doughboy Hollow, and Narrabri.

"Miss M. Flockton has collected a number of specimens from the Port Jackson district and Woy Woy, and has induced several others to collect in various parts of Australia and New Zealand. I hope to be able to give some further account of these in my next report.

"In addition to these I have also made two collections of about 33 species from between Bulli and the Cataract, and at Cheltenham.

"We have also received a number of specimens from beyond this State, including a form of *Xanthoria parietina* from Williams Island, Spencer's Gulf, and Cape Jervis, S.A., collected by Mr. J. H. Maiden; and some very fine specimens of *Usnea angulata*, Ach., collected at the head of Wanganui River, New Zealand, by Mr. G. E. Wilson; as well as 24 species and varieties collected principally in the neighbourhood of Canterbury, New Zealand, by Mr. R. Nichol.

"I omitted to mention in my last report the receipt of 6 species collected by Mr. W. T. Quaife during the expedition to the South Sea Islands, under the auspices of Captain Rason, R.N., H.B.M.'s Commissioner, and of the University of Sydney.

"I have determined the species as far as it is possible with the limited time at my disposal, and have kept separate lists of all the above, for future reference.

"In addition to the above, we have received a collection of 50 named species of American specimens from G. K. Merrill; 40 species of *Kryptogamæ exsiccatae*, Editæ a Museo Palatino Vindobonensis, Decasdes 29-32; and a few from Otto Leonhardt.

"A return collection of 50 species of named Australian specimens has been sent to Mr. G. K. Merrill, as well as a collection of 100 named species of Australasian specimens to the Herbarium Boissier, Geneva."

Algae.—Mr. A. H. S. Lucas, M.A., B.Sc., in honorary charge of this section, reports:—

"The expected paper on a number of Port Jackson and Botany Bay seaweeds forwarded to Mrs. E. S. Gepp, has appeared in the 'Journal of Botany,' August, 1906. The authors, A. and E. S. Gepp, describe two new species and two new varieties, and give much fuller accounts and valuable notes on several other forms. The paper is very useful as confirming and extending our knowledge of many of the local Algae.

"Our *Codiums* were also forwarded to Mrs. Gepp for critical examination, and have been returned with full notes on the different species. The material has been of use to Mrs. Gepp in her work upon the genus.

"An interchange of duplicates has been arranged with Prof. W. H. Setchell, of the University of California."

Fungi.—I deeply regret to report that Mr. Alexander Grant, in honorary charge of this section, died on Christmas Day. He had been ailing for some months.

Some years ago, in answer to a request which I made to all the gardeners, to briefly state their professional experience, Mr. Grant replied as follows:—

"I served an apprenticeship of three years in the gardens of the Earl of Seafield, Cullen House, Banffshire, Scotland, where gardening was carried on in all its branches; since which time I have been in practical touch with my profession in several gardens in Scotland—notably the gardens of Sir W. Ramsay, Sauchie House, Stirlingshire (the testimonial from whom was lost in transit); Woodburn Gardens, near Edinburgh, where my principal attention was directed to the propagation of plants for the flower-garden, and having charge of the vineries, stove houses, and a large conservatory. In the Botanic Gardens, Edinburgh, a large section of the house plants (exotic) was under my charge, and for a considerable time also the New Holland House. In Merchiston Bank Gardens, Edinburgh, my charge was greenhouse and stove plants.

"A large share of practical experience of nursery operations is attained by the Scottish gardener, in that he generally takes this class of work as temporary when out of employment as a gentleman's gardener. In this way a considerable portion of my time was taken up.

"On arriving in New South Wales, my first colonial experience was gained as gardener to Thomas Walker, of 'Yaralla,' Concord, where, for some considerable time, I had charge of the garden and orchards. I was also gardener to Alex. Campbell, M.L.C., of 'Rosemont,' Ocean-street; then gardener to Mr. Tooth, Darling Point, which place I planned and laid out. From 1882 I have been employed in the Botanic Gardens, Sydney, and with the exception of one or two months, my position has been that of Propagator."

He was an ardent microscopist, specialising in Fungi. He was a good préparateur. For some years all papers concerning these plants received at the Botanic Gardens, were referred to Mr. Grant. Since Dr. Cobb left the State, he did the mycological work for the Department of Agriculture in an honorary capacity. He was vice-President of the Horticultural Association since its foundation.

He was an exceptionally modest, retiring man, and he carried this retiring disposition to such an extent that he would not publish his notes on his favourite plants, not even the list of those which he had noted as new for New South Wales.

All who knew him marked his kindly, peaceable nature. He was a quiet student, never happier than when surrounded by his books and microscope.

He was born in 1848 at Cullen, Banffshire, Scotland, so that he was 58 years of age at the time of his death.

Work of the Artist.—Of drawings of *Opuntias* (Prickly-pear) 57 were made in part colour.

Original drawings for illustrating the "Forest Flora of New South Wales" and "Critical Revision of the Genus *Eucalyptus*," were made, and 26 plates were lithographed for these publications. Also many other drawings of plants sent in from the Botanic Gardens and other places were executed, together with a large number of drawings of *Eucalyptus* seedlings, anthers, &c.

BOTANICAL SURVEY OF THE STATE.

New South Wales species, desiderata for the Herbarium.

The list published in my report for 1904 has been reduced during the year 1906, by the acquisition of the following desiderata:—

Prasophyllum filiforme, Fitzg.

Cyperus pygmaeus, Rottb.

List of species described in New South Wales during 1906.—The following list has been compiled by Miss Sarah Hynes, B.A., Second Botanical Assistant, on the lines of the International Catalogue of Scientific Literature:—

Baker, R[ichard] T[homas]—

Acacia [Leguminosae] fuliginea, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (712-713 with pl.) [5,400].

Callitris [Coniferae] Morrisoni, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (717-8 with pl.) [5,400].

Eucalyptus [Myrtaceae] carnea, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (303-305 with pl.) [5,400].

Eucalyptus [Myrtaceae] Thozetiana, F.v.M., ined.
Proc. Linn. Soc., N.S. Wales, 31-1906. (305-308 with pl.) [5,400].

Maiden, J[oseph] H[enry], and Betche E[rnst]—

Acacia [Leguminosae] accola, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (734-735) [5,400].

Boronia [Rutaceae] Deanei, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (731) [5,400].

Boronia [Rutaceae] repanda, n. sp.

Proc. Linn. Soc., N.S. Wales, 31-1906. (732) [5,400].
(Syn. Boronia ledifolia, J. Gay, var. repanda, Maiden and Betche, Proc. Linn. Soc., N.S. Wales, 29-1904. (735.)

Marsdenia [Asclepiadaceae] rostrata, R. Br., var. Dunnii, n. var.

Proc. Linn. Soc., N.S. Wales, 31-1906. (736-737) [5,400].

Portulaca [Portulacaceae] bicolor, F.v.M., var. rosea, n. var.
Proc. Linn. Soc., N.S. Wales, 31-1906. (732) [5,400].

Halorrhagis [Halorrhagaceae] verrucosa, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (397-398) [5,400].

Rottboellia [Gramineae] truncata, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (741-742 with pl.) [6,000].

Radlkofer, Professor L.—

Toechima [Sapindaceae] dasyrrhache, n. sp.
Proc. Linn. Soc., N.S. Wales, 31-1906. (733-734) [5,400].

List of Botanical Papers published in New South Wales during 1906.

(Compiled by Miss Hynes.)

Baker, R. T.—

On two new species of Eucalyptus undescribed or imperfectly known from Eastern Australia (*E. carnea*, n. sp.; *E. Thozetiana*, F.v.M. ined.) Proc. Linn. Soc., N.S.W., 31-1906. (303-308, 2 pl.)

Contribution to a knowledge of the Flora of Australia. Part v (*Acacia fuliginea*, n. sp.; *Callitris Morrisoni*, n. sp.) Proc. Linn. Soc., N.S.W., 31-1906. (711-721 and 3 pl.)

Baker, R. T., and Smith, H. G.—

Vitis opaca, F.v.M., and a chemical investigation of its enlarged rootstock (tuber). Journ. Roy. Soc., N.S.W., 40-1906. (52-59 with pl.)

The Australian Melaleucas and their essential oils. Journ. Roy. Soc., N.S.W., 40-1906. (60-68 with pl.)

Cabbage, R. H.—

Notes on the Native Flora of New South Wales. Part v. Bowral to Wombeyan Caves. Proc. Linn. Soc., N.S.W., 31-1906. (432-452 and pl. 34-35.)

Cheel, E.—

Bibliography of Australian, New Zealand, and South Sea Island Lichens. Journ. Roy. Soc., N.S.W., 40-1906. (141-154.)

Maiden, J. H.—

The Forest Flora of New South Wales:—

Part XIX.

No. 74. The Yellow Wood (*Flindersia Oxleyana*, F.v.M.).

No. 75. The Broad-leaved Peppermint (*Eucalyptus dives*, Schauer).

76. The Bull Oak (*Casuarina Luehmanni*, R. T. Baker). (171-182, 4 plates, 2 photos.)

Part XX.

A recapitulatory part, being additional notes on the species dealt with in Parts I-XIX.

Part XXI.

No. 77. The Crow's Ash or Bogum Bogum (*Flindersia Bennettiana*, F.v.M.).

No. 78. The Blackbutt or Peppermint (of New England) (*Eucalyptus Andrewsii*, Maiden).

No. 79. The Thready-barked Oak (*Casuarina inophloia*, F.v.M. and Bailey). (Vol. 3, I-XI, 4 plates, 3 photos.)

Some Practical Notes on Forestry suitable for N.S. Wales—

Part XII. (43-56.)

XIII. (340-354 and 461-469.)

XIV. (623-632.)

XV. (877-897.)

XVI. (975-989 and 1075-1084) Agric. Gaz., N.S.W., 1906.

The Botany of Howell (Bora Creek); a tin-granite Flora, Proc. Linn. Soc., N.S.W., 31-1906. (63-72)

Weeds of New South Wales—

Purple-top or Wild Verbena (*Verbena bonariensis*, Linn.) Agric. Gaz., N.S.W., 1906. (800 with pl.)

Useful Australian Plants—

No. 95. A Rice Grass (*Leersia hexandra*, Sw.) Agric. Gaz., N.S.W. (1040-1041, with pl.)

Botanical Notes on—

(1) The spread of the Noogoora Burr (*Xanthium strumarium*, Linn.).

(2) A native plant (*Sida corrugata*, Lindl., var. *trichopoda*) recommended as a fodder plant for dry country. Agric. Gaz., N.S.W., 1906. (719.)

Rhodes Grass (*Chloris Gayana*, Kunth). Agric. Gaz., N.S.W., 1906. (1206-1211, and 3 pl.)

Wattles and Wattle Barks. Government Printer, Sydney. 1906, 3rd edition. (1-103, 11 plates.)

Notes on some plants which in drying stain paper. Journ. Roy. Soc., N.S.W., 40-1906. (39-45.)

The International Rules of Botanical Nomenclature adopted by the International Botanical Congress at Vienna, 1905. Journ. Roy. Soc., N.S.W., 40-1906. (74-94.)

Maiden, J. H., and Betche, E.—

Notes from the Botanic Gardens, Sydney, No. 12. Proc. Linn. Soc., N.S.W., 31-1906. (731-742, with pl.)

A review of the New South Wales species of Halorrhagaceae as described in Prof. A. K. Schindler's Monograph of 1905, with the description of a new species. (*Halorrhagis verrucosa*.) Proc. Linn. Soc., N.S.W., 31-1906. (393-398.)

Musson, C. T.—

Botanical Work at Hawkesbury Agricultural College. Agric. Gaz., N.S.W., 1906. (470-474.)

Notes from the Botanical Laboratory, Hawkesbury Agricultural College. Agric. Gaz., N.S.W., 1906. (1222-1224.)

Petrie, J. M.—

The stinging property of the Giant Nettle Tree (*Laportea gigans*, Wedd.). From the Physiological Laboratory of the University of Sydney. Proc. Linn. Soc., N.S.W. 31-1906. (530-545.)

Smith, R. G.—

The formation of slime or gum by *Rhizobium leguminosarum*. Proc. Linn. Soc., N.S.W., 31-1906. (264-294.)

The structure of *Rhizobium leguminosarum*. Proc. Linn. Soc., N.S.W., 31-1906. (295-302, pl. 21-22.)

The fixation of Nitrogen by *Rhizobium leguminosarum*. Proc. Linn. Soc., N.S.W., 31-1906. (608-615.)

The fixation of Nitrogen by *Azotobacter chroococcum*. Proc. Linn. Soc., N.S.W., 31-1906. (616-618.)

Turner, F.—

Botany of North-eastern New South Wales. Proc. Linn. Soc., N.S.W., 31-1906. (365-392.)

International!

International Botanical Congress.—In my last Annual Report I said I would take an early opportunity of laying before Australian botanists the results of the Vienna Congress of 1905, so far as we are affected. I redeemed my promise by reading before the Royal Society of New South Wales, on 5th September, 1906, a paper entitled "The International Rules of Botanical Nomenclature (adopted by the International Botanical Congress, Vienna, 1905)". It was published at pp. 74-94 of Vol. XL.

Publications by the Director and Staff.—Those enumerated in the foregoing list, with the following additions or notes:—

- (a) "Two synonyms of *Eucalyptus capitellata*, Sm." (*Journ. Bot.*, July, 1906, p. 233.)

This note clears up the identity of *E. capitellata*, Sm., var. (?) *latifolia*, Benth., and *E. santalifolia*, F.v.M., var. (?) Baxteri, Benth.

The following note was omitted from the 1905 report:—

"On a new species of *Eucalyptus* from northern New South Wales." By J. H. Maiden, Government Botanist and Director, Botanic Gardens, Sydney.

This is a large White Gum, much resembling the Blue Gum (*E. saligna*) when growing, and whose timber is specially esteemed. Its timber, however, as compared with that of *E. saligna*, is white from the sap to the heart. Its closest affinity appears to be with *E. Deanei*, Maiden. The juvenile foliage of the two species is often remarkably similar, but the mature foliage (that of these two species being narrow-lanceolate) very different. The valves of the fruits of the new species are well exerted, and the two timbers are sharply separated, that of *E. Deanei* being red. The new species is found on low-lying lands of rich volcanic soil at Acacia Creek, Macpherson Range, and also over the Queensland border, but it has not been found, so far, north of the Condamine River. The name *E. Dunnii* has been given to it in honour of its discoverer, Mr. William Dunn.

(b) "The Wattles of the County of Cumberland, New South Wales." (Notes of an address to young students in the "Australian Naturalist," Vol. I, pp. 28-9.)

- (c) "The native fodder-plants of New South Wales."

For the "Official Year Book of New South Wales, 1905-6" (not yet published).

With Mr. Ernst Betche:—"Notes from the Botanic Gardens, Sydney." No. 12, pp. 731-742, Vol. xxxi. *Proc. Linn. Soc., N.S.W.* The following particulars, other than those above given, are submitted.

The following species are described as new:—

- (a) *Boronia Deanei*, allied to *B. parviflora*, Sm., between Clarence and Wolgan, Blue Mountains.
 (b) *B. repanda*, formerly described (see 1904 Report) as *B. ledifolia*, J. Gay, var. *repanda*, F.v.M.
 (c) *Tæchima dasyrrhache*, Radlkofer. A sapindaceous tree, described on behalf of Prof. L. Radlkofer. From the Richmond River.
 (d) *Acacia accola*, mostly closely allied to *A. neriifolia*, A. Cunn.
 (e) *Rottboellia truncata*, an interesting grass from north-western New South Wales, referred, with hesitation, to *Rottboellia*.

The following varieties are described as new:—

- (a) *Portulaca bicolor*, F.v.M., var. *rosea*. From Howell; flowers rose-pink, and number of petals 5 or 6, mostly 6.
 (b) *Marsdenia rostrata*, R.Br., var. *Dunnii*. From Acacia Creek, Macpherson Range.

The following plants are described as new for the State:—

- (a) *Cupania foveolata*, F.v.M. Mueller overlooked one of his own records, and consequently excluded it from New South Wales in his Second Census.
 (b) *Litsea zeylanica*, Nees, a common Queensland plant.
 (c) *Phaleria Neumannii*, F.v.M., a small and beautiful tree hitherto only recorded from Queensland.
 (d) *Sporobolus Benthami*, F. M. Bailey, from Lake Cudgellico.
 (e) *Cynodon ciliaris*, Benth., from Yandama, north-western New South Wales.
 (f) *Chloris divaricata*, R.Br., Yandama.
 (g) *Eragrostis concinna*, Steud. Paroo River flats.

Miscellaneous notes:—

- (a) *Acacia leptoclada*, A. Cunn. The pods are described.
 (b) *Actinotus Forsythii*, Maiden and Betche. The flowers are more fully described.
 (c) *Brachycome pachyptera*, Turcz. Notes are given on the varying leaf characters of this species.
 (d) *Velleja montana*, Hook., f.
 (e) *Endiandra discolor*, Benth. New records are given for these species.
 (f) *Ficus stephanocarpa*, Warb. (spelt *stenocarpa* erroneously in our paper) is described by Warburg as a new species in Just's *Bot. Jahresb.*, and is a synonym of *F. aspera*, Benth., non-Forst., our common coastal sand-paper fig.

Water Hyacinth.—The botanical name of this plant is *Eichhornia crassipes*. It floats upon the water, has a pale purple flower, and is very ornamental. In the Southern United States, and also in Queensland, it has become a serious pest in fresh water, and it has now got a firm hold in several parts of New South Wales. Accordingly, at the request of the Minister for Public Works, a committee, consisting of Mr. F. B. Guthrie, Chemist, Department of Agriculture, Mr. T. E. Burrows, Assistant Engineer, Department of Public Works, and myself, was appointed to report on its spread in New South Wales, and to make recommendations for dealing with it.

Our Report (illustrated) was printed by order of the Legislative Assembly, 20th September, 1906, and was reprinted in the "Agricultural Gazette" for December, so that it is readily available, and need not be dealt with further here.

Material required for Chemical research.—It has always been my endeavour to supply Australian plant material for the purposes of chemical research. The same material is never supplied to more than one person or set of coadjutors for the same research, as overlapping should be guarded against. And if an observer desires to work at Australian material, I do not raise any questions concerning his nationality, except that I give the preference to Australian workers if they have expressed their willingness to undertake the same investigation. We are much indebted to non-Australian scientific men for their researches on Australian material, and Australians need not have any anxiety that the supply of material for their researches will fall short in our time.

During the year fruits of *Pittosporum undulatum* were supplied to Messrs. Burroughs, Wellcome & Co., for the researches of Messrs. Power and Tutin, on the oil (see *Journ. Chem. Soc.*, pp. 1083-1092, 1906); to Prof. Wyndham Dunstan, Director of the Research Department of the Imperial Institute, London, who has experimented upon *Lotus australis*, in which he has found a cyanogenetic glucoside; to Dr. J. M. Petrie, of Sydney, who has worked on the stinging property of our nettle-tree (*Laportea gigas*, Wedd). (See *Proc. Linn. Soc., N.S.W.*, 1906, p. 530.)

Material has been supplied to other workers whose results have not yet been published.

The late Mr. Charles Moore.—An excellent portrait of Mr. Moore, for so many years Director of these Gardens, the gift of some personal friends, including the Hon. W. J. Trickett, M.L.C., and Hermann Haege, was hung on the walls of the Museum in the Gardens in March.

NATIONAL HERBARIUM.

Specimens Presented.

Cambage, R. H., Department of Mines, Sydney.
Crawford, A. R., Moona Plains, N.S.W.
Department of Lands (Forest Branch), Sydney, The Under Secretary.
Department of Agriculture, Sydney, The Director.
Director, Botanic Gardens, Melbourne.
Forsyth, W., Overseer, Centennial Park, Sydney.
French, Junior, C., Department of Agriculture, Melbourne.
Gill, W., Conservator of Forests, S.A.
Gregson, J., Mt. Wilson, N.S.W.

Hart, R., Howell, N.S.W.
Hawkesbury Agricultural College, Richmond, N.S.W., The Principal.
King, Rev. Copland, British New Guinea.
Lawrie, Rev. J. H., Picton, N.S.W.
Rupp, Rev. H. M. R., Warialda, N.S.W.
Sheaffe, G. H., District Surveyor, Goulburn.
Steel, T., Colonial Sugar Refining Company, Sydney.
Webster, L. C., London (late of Coolgardie, W.A.).

Specimens Purchased.

Brazier, John. 25 sheets New Caledonian plants.

Koch, Max. 105 sheets West Australian plants.

Specimens Exchanged.

Received.

Australia.
New South Wales—
Baker, R. T., Curator, Technological Museum, Sydney.
Victoria—
Ewart, Prof. A. J., Government Botanist.
Williamson, H. B., Geelong.
Queensland—
Bailey, F. M., Colonial Botanist, Brisbane.
South Australia—
Rogers, Dr. R. S., Adelaide.
Western Australia—
Fitzgerald, W. V., Perth.
Europe.
England—
Britten, J., British Museum, Department of Botany.
Dyer, Sir W. Thiselton, Director, Royal Gardens, Kew.
Austria—
Zahlbrückner, Dr. A., Director, K. K. Naturhist. Hofmuseum, Vienna.
France—
Lignier, Prof. O., University of Caen.
Germany—
Diels, Dr. L., Royal Botanic Garden, Berlin.
Kaulfuss, J., Nürnberg.
Kneucker, A., Karlsruhe.
Schlechter, Dr. R., Berlin.

Switzerland—
Christ, Dr. Basle.
Schinz, Dr. H., Director, Botanic Gardens, Zurich.

Asia.

Merrill, E. D., Manila.
Prain, Lieut.-Col., Superintendent, Royal Botanic Gardens, Calcutta.
Ridley, H. N., Director, Botanic Gardens, Singapore.

Africa.

Schönland, Dr. L., Director, Albany Museum, Grahamstown, Cape Colony.
Wood, J. Medley, Director, Botanic Gardens, Durban, Natal.

North America.

Baker, C. F., Cuba.
Fischer, G. L., St. Thomas, Ontario.
Robinson, Dr. B. L., Cambridge, Mass.
Sargent, Prof. C. S., Arnold Arboretum, Jamaica Plains.

South America.

Osten, Cornelius, Montevideo.

Despatched.

Australasia.

New South Wales—
Baker, R. T., Curator, Technological Museum, Sydney.
Trustees of Captain Cook's Landing Place, Botany Bay.
Victoria—
Ewart, Prof. A. J., National Herbarium, Melbourne.
French, Junior, C., Assistant Entomologist, Melbourne.

South Australia—
Rogers, Dr. R. S., Adelaide.
Western Australia—
Fitzgerald, W. V., Perth.
New Zealand—
Cheeseman, T. F., Curator, Museum, Auckland.

Europe.

Europe.

- England—
 Britten, J., British Museum, Department of Botany.
 Dyer, Sir William Thiselton, Director, Royal Botanic Gardens, Kew.
 Holmes, E. M., Pharmaceutical Society of Great Britain, London.
- Scotland—
 Bower, Professor F. O., Glasgow.
- Austria—
 Pabisch, Dr. H., Vienna.
 Zahlbrückner, Dr. A., Director, Royal Museum, Vienna.
- Belgium—
 Wildemann, Dr. E., Conservator of the Herbarium, Botanic Gardens, Brussels.
- France—
 Lignier, Prof. O., Jardin des Plantes, Caen.
 Petitmeugin, Prof. M., Université de Nancy.
 Pitard, Prof. J., l'Ecole de Médecine, Tours.
- Germany—
 Engler, Prof. A., Director, Royal Botanic Gardens and Museum, Dahlem, near Berlin.
 Kaulfuss, J., Nürnberg.
 Kneucker, A., Karlsruhe.

Switzerland—

- Beauverd, G., Conservateur de l'Herbier Boissier, Chambésy.
 Schinz, Dr. H., Director, Botanic Gardens, Zürich.

Asia.

- Merrill, E. D., Bureau of Science, Manila.
 Treub, Dr., Department of Agriculture, Buitenzorg.

Africa.

- Schönland, Dr., Albany Museum, Grahamstown, Cape Colony.
 Wood, J. Medley, Director, Botanic Gardens, Natal.

North America.

- Baker, C. F., Estacion Cent. Agronomica, Santiago, Cuba.
 Beadle, Prof. C. D., Biltmore Herbarium.
 Fischer, G. L., St. Thomas, Ontario.
 Jeffrey, Prof. E. C., Harvard University.
 MacMillan, Prof. Conway, University of Minnesota.
 Pringle, Prof. C. G., University of Vermont.
 Robinson, Dr. B. L., Gray Herbarium, Cambridge, Mass., U.S.A.

South America.

- Museo de Farmacologia, Buenos Aires.
 Osten, Cornelius, Montevideo.

BOTANICAL MUSEUM.

Mr. Betche reports:—

"The number of specimens added during 1906 to the Museum is 387. The new additions are chiefly timber and carpological specimens, gums, resins, fibres, and barks obtained by the Director and Collector in their botanical explorations of New South Wales, as well as similar specimens sent by correspondents within the Commonwealth, or from the adjacent islands trading with Sydney. A great number of photographs of Australian plants were received as donations, several interesting monstrosities were added to the teratological collection, and 10 new fossil New South Wales plants to the palæontological collection.

Exchange with other botanical museums did not take place. The Museum is still only about half arranged, and we are too busy with sifting, arranging and cataloguing the old material to be able to push the exchanges.

Specimens Presented.

- Anderson & Co., Seed Merchants, Sydney.
 Clarke, H., Carlton, N.S.W.
 Davey, F. J., Terranora, Tweed Heads.
 Department of Lands (Forest Branch), Sydney, The Under Secretary.
 Dunn, W., Acacia Creek, N.S.W.
 Fletcher, M. A., J. J., Secretary Linnean Society of New South Wales.
 Fraser, A., Harris-street, Sydney.
 Gibbs, Bright, & Co., Sydney.
 Gill, W., Conservator of Forests, Adelaide.
 Heine, Karl, Marshall Islands
 Hynes, B. A., Miss S., Sydney.

- Jene, H. L., Commonwealth Oil Company, Clarence, N.S.W.
 Lance, C. C., Strathfield, N.S.W.
 Lever's Pacific Plantations, The Manager, Sydney.
 Murphy, A., Woy Woy, N.S.W.
 Pierce, W. H., St. Ives, N.S.W.
 Procter, Prof. H. R., The University, Leeds.
 Robertson, Rev. H. A., New Hebrides.
 Rossitter, J., Noumea, New Caledonia.
 Smith, S. G., Bungwahl, N.S.W.
 Stephenson, G. A., Sydney.
 Tate, Mrs. Sydney.
 Taylor & Co., Allen, Sydney.
 Tingcombe, Mrs. G., Sydney.

Specimens Purchased.

- Koch, Max, Wooroloo, W.A. Carpological Specimens.

Specimens Exchanged.

Received.

- Baker, R. T., Curator, Technological Museum, Sydney.
 Baroda Botanic Gardens, The Director.
 Davy, J. Burt, Botanist, Pretoria, Transvaal.
 Durban Botanic Gardens, The Director.

- Jamaica Botanic Gardens, The Director.
 MacMahon, P., Director of Forests, Queensland.
 Ridley, H., Director, Botanic Gardens, Singapore.
 Treub, Dr., Department of Agriculture, Buitenzorg, Java.

LIBRARY.

PUBLICATIONS ACQUIRED BY GIFT AND PURCHASE.

BIBLIOGRAPHY.

- International Catalogue of Scientific Literature. M. Botany.
 Third Annual Issue (1905).

BIOGRAPHY.

- Léo Errara. 1858-1905. (Presented by Madame Errara.)

DICTIONARIES AND TEXT-BOOKS.

- Schneider, C. K. Illustriertes Handwörterbuch der Botanik
 svo. pp. 690.

EXTERNAL MORPHOLOGY AND ORGANOGENY (INCLUDING TERATOLOGY).

- Jeffrey, E. C. Morphology and Phylogeny. (Science, Feb., 1906.) (Presented by the Author.)
 Ule, E. Ueber Verlängerung der Achsengebilde des Blütenstandes zur Verbreitung der Samen.

- (Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1896. Band XIV. Heft 8.) (Presented by E. Betche.)

ANATOMY, DEVELOPMENT AND CYTOLOGY.

- Bois, D., and Galland, I. Modifications anatomiques et physiologiques provoquées dans certaines plantes tropicales par le changement de milieu. 4to, pp. 3. (Presented by D. Bois.)
- Greenish, H. G., and Collin, E. An anatomical Atlas of Vegetable Powders. 8vo, pp. 285.
- Winton, A. L. The Microscopy of Vegetable Foods, with special reference to the detection of adulteration and the diagnosis of Mixtures. 8vo, pp. 701.

PHYSIOLOGY.

- Ewart, Alfred J. The ascent of water in trees. (Philosophical Transactions of the Royal Society of London.) Series B. Vol. 198, pp. 41-85.
Can isolated chloroplastids continue to assimilate? (Separat Abdruck, Botanisches Centralblatt. Band LXXV. No. 2. XIX. Jahrgang.)
The resistance to flow in wood vessels.
Root pressure in trees. (Annals of Botany. Vol. XVIII. No. LXIX. Jan., 1904.)
Physiological research in the Tropics. (Extrait des Annales du Jardin Botanique de Buitenzorg. Supplement II, pp. 89-96.)
The influence of correlation upon the size of leaves. (Extract from Annals of Botany. Vol. XX. No. LXVII. January, 1906.)
(All presented by the Author.)
- Ewart, A. J., and Bayliss, Jessie S. On the nature of the galvanotropic irritability of roots. (Reprint from Proc. Roy. Soc., B. Vol. 77.) (Presented by the Authors.)
- Knuth, P. (Translated by Davis, J. R. A.) Handbook of Flower Pollination, based upon H. Müller's work—"The Fertilisation of Flowers by Insects." 8vo, pp. 380.
- Monnier, Alfred. Les matières minérales et la loi d'accroissement des végétaux. 8vo, pp. 37. (Presented by Prof. Chodat.)
- Pfeffer, W. (Translated and revised by A. J. Ewart). The Physiology of plants. A treatise on the metabolism and sources of energy in plants. 8vo, pp. 451. (Vol. III.)
- Ule, E. Verschiedenes über den Einfluss der Thiere auf das Pflanzenleben. (Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1900. Band XVIII. Heft. 3.) (Presented by E. Betche.)
- Wright, Herbert. Foliar periodicity of endemic and indigenous trees in Ceylon. (Reprinted from "Annals of the Royal Botanic Gardens, Peradeniya." Vol. II, part III.) (Presented by the Author.)
- Zacharias, E. Blütenbiologische Beobachtungen. (Separat-Abdruck aus den Verhandlungen des Naturw. Vereins in Hamburg, 1905. 3 Folge, XIII. (Presented by the Bot. Museum, Hamburg.)

GENERAL WORKS ON SYSTEMATIC BOTANY.

- Hallier, H. Ein zweiter Entwurf des Natürlichen (phylogenetischen) systems der Blütenpflanzen.
(Sonderabdruck aus den Berichten der Deutschen Botanischen Gesellschaft Jahrgang, 1905. Band XXIII. Heft. 2.) (Presented by the Bot. Museum, Hamburg.)

BOTANIC GARDENS, MUSEUMS, AND HERBARIA.

Europe.

Great Britain and Ireland.

- Kew, Royal Gardens. Bulletin of Miscellaneous Information:—
No. 157-168 (1900).
178-180 (Oct.-Dec., 1901).
No. 1 (1902).
1 (1903).
1 (1904).
Nos. 2, 3 (1905). Also Appendix IV.
1, 2 (1906). Also Appendices II and III.
Catalogue of Portraits of Botanists exhibited in the Museums of Royal Botanic Gardens.
Hand-list of ferns and fern-allies cultivated at the Royal Gardens, Kew. (All presented by the Director.)
Index Kewensis Plantarum Phanerogamarum. Fasc. IV, Cambridge Botanic Gardens. Annual Report of the Syndicate for the year 1905. (Presented by the Curator.)
- Veitch, J. H. Hortus Veitchii. A history of the rise and progress of the nurseries of Messrs. James Veitch and Sons, together with an account of the Botanical Collectors and Hybridists employed by them, and a list of the most remarkable of their introductions. 4to, pp. 542. (Presented by the Author.)

Austria.

- Wien. Separat-Abdruck aus dem XIX Bande der Annalen des K. K. Naturhist. Hofmuseums, 1904. Jahresbericht für 1903. (Presented by the Director.)

Belgium.

- Wildeman, E. de. Plantæ Novæ, vel minus cognitæ ex Herbario Horti Thenensis. Cinquième livraison. (Dec., 1905.) Also sixième livraison.
Icones Selectæ Horti Thenensis. Tome V. Fasc. 6, 7, 8. (All presented by M. van den Bossche.)

France.

- Bois, D. Description de Plantes Nouvelles cultivées dans le Fruticetum de M. Maurice de Vilmorin aux Barres, par Nogent sur Vernisson. (Extrait Bull. de la Soc. Bot. de France. Tome II.) (Presented by the Author.)

Germany.

- Berlin. Bericht über den Botanischen Garten und das Botanische Museum zu Berlin, 1905. (Presented by the Director.)
- Klebahn, H. Corylus columna im Botanischen Garten zu Hamburg. (Sonderabdruck aus "Gartenflora," 1905. (54. Jahrgang, Heft. 20.) (Presented by the Director, Bot. Museum, Hamburg.)
- Hamburgische Botanische Staatsinstitute Jahresberichte. 1902; also 1903. Aus den Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten, XXI.
Mitteilungen aus den Botanischen Staatsinstituten in Hamburg.
- Herring, W. Die Baccharis Arten des Hamburger Herbars.
Zacharias, E. Über die Cyanophyceen, mit einer Tafel. (All presented by the Director, Bot. Museum, Hamburg.)

Holland.

- Haarlem, Kolonial Museum. Bulletin No. 34, Mei., 1906.
Houtsoorten van Nederlandsch Oost-Indie.
(Both presented by the Director.)

Italy.

- Florence Botanic Gardens. Lavori Eseguiti nel R. Orto Botanico di Firenze. Fasc. 4, 5. (Presented by the Director.)
- Siena Botanic Gardens. Bulletino del Laboratorio ed orto Botanico anno ottavo. Fasc. 1-4, 1906. (Presented by the Director.)

Russia.

- Tiflis Botanic Gardens. Moniteur du Jardin Botanique de Tiflis. Livraison I, 1905; also Livraison 2, 3, 5, 4, 1906.
Flora Caucasia critica. IX, I.
(Presented by the Director.)

Switzerland.

- Bern Botanic Gardens. Jahresbericht über den Botanischen Garten in Bern pro 1905. (Presented by the Director.)
- Zürich. Der Botanische Garten und das Botanische Museum der Universität Zürich im Jahre, 1905. (Report.) (Presented by the Director.)

Asia.

Buitenzorg, Department of Agriculture.

- Bulletin du Department de l'Agriculture aux Indes Néerlandaises. No. 1.
Bulletin de l'Institut Botanique de Buitenzorg. No. XIX; XXII.
Verslag omtrent de te Buitenzorg Gevestigde Technische Afdeelingen van het Department von Landbouw, 1905.
Mededeelingen uitgaande van het Department van Landbouw, No. 2.
Bijdrage, No. 11. Tot de Kennis der Boomsorten op Java. Door S. H. Koorders en H. Valetton.
Tweede verslag van de selectie.—Proeven met de Natal-Indigo plant. Door S. Willbrink. (All presented by the Director.)

Hong Kong.

- Report on the Botanical and Forestry Department for the year 1905. (Presented by the Director.)

India.

- Calcutta Royal Botanic Gardens Annals. Vol. X, part 2. The Aconites of India. A Monograph by Otto Stapf. (Presented by the Director.)
- Calcutta Museum. Annual Report of the Industrial Section for the year 1905-6.
Collections for the Indian Museum, Calcutta, and the Imperial Institute, London. (Extracted from Report and Programme, 1906.)
(Both presented by the Director.)
- Lucknow Horticultural Gardens. Report for the year ending 31st March, 1906. (Presented by the Director.)
- Madras Agri-Horticultural Society. Proceedings of the Annual General Meeting for the year 1905-6. (Presented by the Secretary.)

- Mysore. Annual Report of the Government Gardens and Parks for the official year 1905-6, with the Government review thereon. (Presented by the Director.)
- Saharanpur and Mussoorie. Annual Report on the Government Botanical Gardens for the year ending 31st March, 1906. (Presented by the Director.)
- Journal of the Agri-Horticultural Society of Western India. Dec., 1905, to March, 1906. (Presented by the Secretary.)
- Bulletins of the Agri-Horticultural Society of Western India. Nos. 1, 2, and 3. (Presented by the Curator, Empress Gardens, Poona.)
- Annual Report on the Gardens of His Highness the Maharana Fatah Singhji Bahadur for the year 1905-6. (Presented by the Superintendent, Sajjam Nivas Gardens, Udaipur.)
- Ceylon.
- Royal Botanic Gardens. Administration Reports, 1905, Part iv. Education, Science, and Art. (Presented by the Director.)
- Straits Settlements.
- Singapore and Penang. Annual Report on the Botanic Gardens for the year, 1905. (Presented by the Director.)
- Africa.
- Natal. Report on the Botanic Gardens and Colonial Herbarium for the year 1905-6.
Natal Plants, Vol. 4, Part, 4; Vol. 5, Part 3, Grasses.
(All presented by the Director.)
- North America.
- Robinson, B. L. Contributions from the Gray Herbarium of Harvard University, New Series, No. xxxii. Studies in Eupatoriaceae. (Presented by the Author.)
- Chicago, Field Columbian Museum. Annual Report of the Director to the Trustees for the year 1904-5. Report Series, Vol. II, No. 5. Botanical Series, Vol. II, No. 3. Praenuncle Bahamensis, I. Contributions to the Flora of the Bahamian Archipelago. (Presented by the Director.)
- Smithsonian Institution. Annual Report of the Board of Regents for the year ending 30th June, 1904.
Contributions from the United States National Herbarium:—
Vol. x, Part 1. North American Species of Festuca.
Part 2. The Genus Ptelea in the Western and South-western United States and Mexico.
Vol. xi. Flora of the State of Washington.
(All presented by the Secretary, Smithsonian Institution.)
- South America and West Indies.
- Brazil. Boletim do Museu Goeldi (Museu Paraense) de Historia Natural e Ethnographia. Vol. 4, No. 4.
Relação das Publicações Científicas Feitas Pelo Museu Goeldi de Historia Natural e Ethnographia, 1879-1904.
(Both presented by the Director.)
- Buenos Aires. Anales del Museo Nacional. Tomo XII, Ser. 3, pp. 65, 66. *Zephyranthes porphyrospila*, Holmberg.
Ser. 3^a, pp. 75-192. *Amarilidaceas Argentinas indigenas y exoticas cultivadas*, por Eduardo Ladislao Holmberg.
(Presented by the Director.)
- Montevideo. Anales del Museo Nacional. Tomo II, Entrega I, Ser. II, Entrega II. (Presented by the Director.)
- Barbados Botanic Station. Report of the Agricultural Work for the season between 1902-4, carried on under the direction of the Imperial Department of Agriculture for West Indies. Parts I and II. (Presented.)
- Trinidad Botanic Gardens. Annual Report for year ended 31st March, 1905.
West Indian and Guiana Ferns.
(Both presented by the Director.)
- Australasia.
- Victoria. Annual Report of the Government Botanist and Director of the Botanic and Zoologic Garden for 1860-1, 1869, 1874.
- DICOTYLEDONS.
- Acanthaceae. Clarke, C. B., New Philippine Acanthaceae. (Suppt. iv, Vol. 1. The Philippine Journal of Science). (Presented by the Director, Royal Gardens, Kew.)
- Apocynaceae. Ule E. *Dipladenia atro-violacea*, Müll. Arg. und Begonien als Epiphyten.
(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1897. Band xv. Generalversammlungs-Heft.) (Presented by E. Betche.)
- Aristolochiaceae. Ule, E. Über einen experimentell erzeugten Aristolochien Bastard.
(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1899. Band xviii. Heft. 1.)
Beitrag zu den Blütheneinrichtungen von *Aristolochia clematitis*, L.
(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1898. Band xvi. Heft. 8.) (Both presented by E. Betche.)
- Betulaceae. Benson, Margaret; Sanday, Elizabeth; and Ber-ridge, Emily. Contributions to the Embryology of the Amentiferae.
Part II. *Carpinus Betulus* (Trans. Linn. Soc. London, Vol. III, Part 3.)
(Presented by Dr. M. Benson.)
Junge, P., Aus der Flora der Nordwestdeutschen Tiefebene; Die Bastarde der *Betula nana*. (Separat Abdruck aus den Verhandlungen des Naturw. Vereins in Hamburg, 1905. 3 Folge XIII.) (Presented by the Director, Botanic Museum, Hamburg.)
- Cactaceae. Berger, A. A systematic revision of the Genus *Cereus*, Mill. (From 16th Annual Report of the Missouri Botanic Garden, May, 1905.) Presented by the Director, Missouri Botanic Gardens.)
Engelmann, G. and Bigelow, J. M. Description of the Cactaceae. 4to.
- The Cactus Journal. Vols. I and II.
- Campanulaceae. Luehmann, J. G. Description of a new *Lobelia* from Western Australia. (From Vict. Naturalist. Vol. xvii, No. 9, Jan. 10, 1900.) (Presented by A. J. Ewart.)
- Cruciferae. Bois, D. Présentation du Pé Tsai ou Chou de Chine (*Brassica chinensis*, L.) (Extrait du Bulletin du Muséum d'Histoire Naturelle, Paris.) (Presented by the Author.)
- Gentianaceae. Burkill, J. H. On *Swertia angustifolia*, Ham., and its allies. (From Journ. and Proc. Asiatic Soc. of Bengal (New Series). Vol. II, 8, 1906.) (Presented by the Author.)
- Juglandaceae. Nicoloff, H. Sur le type Floral et la Développement du fruit des Juglandées; Parts I and II. (Extrait du Journal de Botanique, xxviii-xxix.) (Presented by Prof. Chodat.)
- Julianaceae. Hemsley, W. B. On the Julianaceae, a new order of plants. (From Proc. Roy. Soc. B. Vol. 78, 1906.) (Presented by the Author.)
- Leguminosae. Maiden, J. H. Wattles and Wattle Barks; being hints on the conservation and cultivation of Wattles, together with particulars of their value, with a botanical appendix concerning N.S.W. species. 8vo, pp. 103. (3rd edition.)
(Presented by the Author.)
- Lentibulariaceae. Ule, E. Ueber Standortsanpassungen einiger Utricularen in Brasilien.
(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1898. Band xvi. Heft. 9.)
Verschiedene Beobachtungen vom Gebiet der baumbe-wohnenden Utricularia.
(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1900. Band xviii. Heft. 6.)
(Both presented by E. Betche.)
- Loranthaceae. Burkill, J. H. A parasite upon a parasite. A *Viscum* apparently *V. articulatum*, Burm. on *Loranthus vestitus*, Wall., on *Quercus incana*, Roxb. (From the Journ. and Proc. Asiatic Soc. of Bengal. (New Series.) Vol. II, No. 7, 1906.) (Presented by the Author.)
- Magnoliaceae, &c. Hallier, H. Ueber die Gattung *Laphniphyllum*, ein Uebergangsglied von den Magnoliaceen und Hamamelidaceen zu den Kätzchenblüthlern.
(Sonderabdruck aus dem Tokio Bot. Mag. Bd. xviii.) (Presented by the Director, Bot. Museum, Hamburg.)
- Malvaceae. Hochreutiner, B. P. G. *Neobrittenia*. Un nouveau genre de Malvacées. (Extrait de l'Annuaire de Conservatoire et du Jardin botanique de Genève ix année, 1905.)
Malvaceae et Bombaceae novae vel minus cognitae (Extrait de l'Annuaire du Conservatoire et du Jardin Botanique de Genève x année, 1906.) (Both presented by the Author.)
- Myrtaceae. Luehmann, J. G. A short Dichotomous key to the hitherto known species of *Eucalyptus*. (Aust. Ass. Adv. Sci., Sydney session, 1898.) (Presented by A. J. Ewart.)
Mueller, Baron F. von, and Cesati, Prof. V. Note intorno ad alcuni sinonimi vel genere *Eucalyptus*. (Estratto dal Nuovo Giornale Botanico Italiano, Vol. XII, N. 1, Gennias, 1880.) (Presented by A. J. Ewart.)
- Nymphaeaceae. Conrad, Henry. The Water-lilies. A monograph of the genus *Nymphaea*. Large 4to, p. 279. (Presented by the Carnegie Institution.)
- Oenotheraceae. Vries, Hugo de. Über die Dauer der Mutationsperiode bei *Oenothera Lamarckiana* (Sonderabdruck aus den Berichten der Deutschen Botanischen Gesellschaft Jahrgang, 1905. Band xxiii, Heft. 8.) (Presented by the Author.)
- Polygalaceae. Chodat Prof. Dr. R. Monographia Polygalacearum. Large 4to, p. 500.
(Mémoires de la Société de Physique et d'Histoire Naturelle de Geneve. Tome xxxi, 2nd Series, No. 2.) (Presented by the Author.)
- Ranunculaceae. Löffler, H. Über verschiedene *Ficaria* Formen und über die Fortpflanzung bei *Ficaria verna*, Huds. (Separat-abdruck aus den Verhandlungen des naturw. Vereins in Hamburg, 1905, 3 Folge XIII.) (Presented by the Director, Botanic Museum, Hamburg.)

Rosaceæ. Bois, D. Sur une pomme piriforme. (Extrait du Journ. Soc. Nat. d'Hort. de France, Nov., 1904.) (Presented by the Author.)

Sargent, C. S. Recently recognised species of *Crataegus* in Eastern Canada and New England. VI. ¶ (From *Rhodora*, Vol. 7. Nos. 81, 82 and 83.) (Presented by the Author.)
Sargent, C. S., and Peck, C. H. Species of *Crataegus* found within 20 miles of Albany. (Reprinted from New York State Museum Bulletin No. 105. (Presented by C. S. Sargent.)

Saxifragaceæ. Mueller, Baron F. von. Sopra la Posizione sistematica del Genere *Donatia*. (Estratto dal Nuovo Giornale Botanico Italiano. Vol. XI. N. 3. Lugilo, 1879.) (Presented by A. J. Ewart.)

Simarubaceæ. Loesener, Th., and Solereder, H. Ueber die bisher wenig bekannte Südamerikanische Gattung *Regio-tachis*. (Extra print from Abhandlungen des Botanischen Vereins der Provinz Brandenburg XLVII, 1905.) (Presented by the Authors.)

Solereder, H. Ueber die systematische Stellung der Gattung *Regiostachys*, zugleich ein Beitrag zur näheren Kenntniss der *Simarubæ-Surianoideæ*.

(Extra print from Abhandlungen des Botanischen Vereins der Provinz Brandenburg, XLVII, 1905.) (Presented by the Author.)

Solanaceæ. Maiden, J. H. Australian *Solanaceæ* considered as Narcotics and Poison Plants.

(Extract from Journal, Therapeutical Society, London.) (Presented by the Author.)

Urticaceæ. Candolle, Casimiride. Nouvelle Etude des Hypoascidies de *Ficus*. (Extrait du Bull. de l'Herbier Boissier, 2nd Ser., 1902, No. 9.)

Meliaceæ Novae e Nova Guinea, Samoa et Nova-Caledonia. (Extrait du Bull. de l'Herbier Boissier, 2nd Ser., 1903, No. 3.) (Presented by the Author.)

Trelease, W. Illustrations of a strangling Fig Tree. (From 16th Annual Report of the Missouri Botanical Garden.) (Presented by the Director, Missouri Botanical Garden.)

MONOCOTYLEDONS.

Bromeliaceæ. Ule, E. Ueber einige neue und interessante Bromeliaceen.

(Sonderabdruck aus den Berichten der Deutschen Bot. Gesellschaft, 1899. Band XVII, Heft. 1.)

Ueber spontan entstandene Bastarde von Bromeliaceen. (Band XVII, Heft. 2.)

Bromeliaceæ. (Band XVII, Heft. 2.)

Ueber weitere neue und interessante Bromeliaceen. (Band XVIII [1900], Heft. 7.)

(All presented by E. Betche.)

Cyperaceæ. Bush, F. The North American Species of *Fuirena*. (Presented by the Director, Missouri Bot. Gardens.)

Gramineæ. Chrysler, M. A. The nodes of grasses. (Reprinted from the Bot. Gazette, No. 41, 1-16 Jan., 1906.) (Presented by the Author.)

Hitchcock, A. S. The identification of Walter's Grasses. (From 16th Annual Report of the Missouri Bot. Gardens.) (Presented by the Director.)

Orchidaceæ. Smith, J. J. Die Orchideen von Ambon. 4to, p. 125. (Presented by the Director of Agriculture, Buitenzorg.)

Palmæ. Copland, E. B. On the water relations of the Coconut Palm (*Cocos nucifera*). (Reprint from Philippine Journ. Science. Vol. I, No. 1, Jan. 1906.) (Presented by the Bureau of Science, Manila.)

Pontederiaceæ. Maiden, J. H.; Guthrie, F. B.; and Burrows, E. T. Report—Water Hyacinth in N.S.W. (Presented by J. H. Maiden.)

Potamogetonaceæ. Bennett, Arthur. Notes on Potamogetons of the Herbarium Delessert. (Extract de l'Annuaire du Conservatoire et du Jardin botanique de Genève, 9 année, 1905.) (Presented by the Author.)

GYMNOSPERMES.

Coniferæ. Ewart, A. J., and Mason-Jones, A. J. The formation of red wood in Conifers. (Annals of Bot., Vol. XX, April, 1906.) (Presented by A. J. Ewart.)

U. S. Diplomatic and Consular Reports, No. 647. Turpentine Industry in the United States. (Presented by the Exchange Board, Sydney.)

Gnetaceæ. H. H. W. Pearson. Some observations on *Welwitschia mirabilis*, Hook. f. (Phil. Trans. Roy. Soc., London. Series B. Vol. 198, pp. 265-304. Plates 18-22.) (Presented by the Author.)

PALÆOBOTANY.

Jeffrey, E. C., and Hollick, A. Affinities of certain cretaceous plant remains commonly referred to the genera *Dammara* and *Brachyphyllum*. (Reprint from the American Naturalist, Vol. XL, No. 471.) (Presented by Dr. Jeffrey.)

CRYPTOGAMS GENERALLY.

Trelease, W. Cryptogamic Botany of Alaska. Large 8vo., pp. 9. (Presented by the Director, Missouri Bot. Gardens.)

VASCULAR CRYPTOGAMS.

Christensen, Carl. Index Filicum Enumeratio Generum Specierumque Alphabetica. Fasc. 1-11.

Diels, Dr. L. Die primitivste Form von *Lygodium*. (Sonderabdruck aus "Hedwigia," Bd. XLIV.) (Presented by the Author.)

MOSESSES AND HEPATICÆ.

Goebel, Dr. K. Archegoniatenstudien-Abdruck aus der Flora oder Allgemeine botanische Zeitung. 8vo., pp. 202. (Presented by the Author.)

Jaap, O. Weitere Beiträge zur Moosflora der Umgegend von Hamburg. (Separat-Abdruck aus den Verhandlungen des Naturw. Vereins in Hamburg, 1905. 3 Folge XIII.) (Presented by the Director, Bot. Museum, Hamburg.)

Trelease, W. Alaskan species of *Sphagnum*. (Presented by the Director, Missouri Bot. Garden.)

Ule, E. Die Verbreitung der Torfmoose und Moose in Brasilien. (Separat-Abdruck aus Engler's Bot. Jahrbüchern 27 Band, 3 Heft., 1899.) (Presented by E. Betche.)

ALGÆ AND CHARACEÆ.

Borge, O. Die Algen der ersten Regnellischen Expedition III Zygneaceen und Mesocarpaceen. (Sartrych ur Arkiv för Botanik utgifoet of K. Svenska Vetenskapsakademien, Band I.) (Presented by the Author.)

Laing, R. M. A list of the Seaweeds of Norfolk Island. (Trans. N.Z. Inst. Vol. XXXIII.)

Appendix to the list of Seaweeds of Norfolk Island. (Trans. N.Z. Inst. Vol. XXXVIII, 1905.)

On the New Zealand species of *Ceramiceæ*. (Trans. N.Z. Inst. Vol. XXXVII, 1904.)

(All presented by the Author.)

Wille, N. Ueber die Gattung *Ghonema* Ag. Eine Nomenklaturstudie. (Sonderabdruck aus der Festschrift zu P. Ascherson's Siebzigstem Geburtstage.) (Presented by the Author.)

Zacharias, E. Ueber Statolithen bei *Chara*. (Sonderabdruck aus den Berichten der Deutschen Botanischen Gesellschaft Jahrgang, 1905. Band XXIII, Heft. 8.) (Presented by the Author.)

LICHENS.

Erischen, F. Beiträge zur Flechtenflora der Umgegend von Hamburg und Holsteins. (Separat-Abdruck aus den Verhandlungen des Naturw. Vereins in Hamburg, 1905. 3 Folge, XIII.) (Presented by the Director, Botanic Garden, Hamburg.)

FUNGI, BACTERIA, AND MYCETOZOA.

Boulanger, M. E. Notes sur la Truffe, 1904-6. (Presented by the Author.)

Fischer, A. The Structure and Functions of Bacteria. 8vo, pp. 198. (Translated into English by A. Coppen-Jones.)

Fries, Elias. Systema Mycologicum sistens Fungorum ordines, Genera et species. 3 vols., small 8vo, pp. 154, 202, and 154.

Klebahn, H. Kulturversuche mit Rostpilzen, XII, Bericht, 1903 und 1904.

(Sonderabdruck aus der "Zeitschrift für Pflanzen-Krankheiten," xv. Bd. 2, Heft.)

Zusammenhänge von Ascomyceten mit Fungis imperfectis. (Abdruck aus dem Centralblatt f. Bacteriologie Parasitenkunde, &c., von Prof. Dr. O. Uhlworm in Berlin, xv, Band, 1905. Nos. 10, 11.)

Schädigung von Champignon-Kulturen durch Mückenlarven.

Untersuchungen über einige Fungi imperfecti und die zugehörigen Ascomycetenformen, I und II.

(Separat-Abdruck aus den Jahrbüchern für Wissenschaftliche Botanik. Band XLII, Heft. 4.)

Über die Botrytis Krankheit der Tulpen.

(Sonderabdruck aus Zeitschrift für Pflanzen-Krankheiten XIV. Band, 1 Heft.)

(All presented by the Director, Bot. Museum, Hamburg.)

Einige Bemerkungen über das Mycel des Gellrotes und über die neueste Phase der Mykoplasma-Hypothese. (Sonderabdruck aus den Berichten der Deutschen Botanischen Gesellschaft, 1904. Band xxx, Heft. 4.) (Presented by the Author.)

Lloyd, C. G. Two rare plants from Australia—The Tylostomeæ; illustrated with 12 plates and 6 figures. 8vo, pp. 28.

The Geastrea. 8vo, pp. 43.

Index of the Mycological Writing of C. G. Lloyd. Vol. I. Mycological Notes, Nos. 19, 20, and 21.

(All presented by the Author)

McAlpine, D. The rusts of Australia; their structure, nature, and classification. With 55 plates (including 366 figures). 8vo, pp. 549.
 Australian Acacia Rusts, with their specific hosts. (Reprinted from the *Annales Mycologici*. Vol. iv, No. 4, 1906.) (Both presented by the Author.)
 Mitteilungen aus den Botanischen Staatsinstituten in Hamburg:—
 Klebahn, H. Über die Böttrytiskrankheit und die Sklerotien-krankheit der Tulpen, die Böttrytiskrankheit der Maiblumen und einige andere Botrytiskrankheiten.
 Über eine merkwürdige Missbildung eines Hutpilzes.
 Junge, P. Beiträge zur Kenntnis der Getreidepflanzen Schlesiens. (Presented by the Director, Botanic Museum, Hamburg.)

GEOGRAPHICAL DISTRIBUTION.

Europe.

Hegi, Gustav. Beiträge zur Pflanzen-geographie der bayerischen Alpenflora. 8vo, pp. 108. (Presented by the Author.)
 Kjellmann, F. R. Botaniska Studier. (Presented by K'gl. Universitets-Biblioteket, Uppsala.)
 Sylven, Nils. Om de Svenska Dikotyledonernas Första Förstärknings-stadium, II, Allmän Del. (Presented by K'gl. Universitets-Biblioteket, Uppsala.)
 Wille, N. Über die Schübelerschen Anschauungen in Betreff der Veränderungen der Pflanzen in nördlichen Breiten. (Sonderabdruck aus dem "Biologischen Centralblatt," Bd. xxv, Nr. 17, 1/9/05.)
 Om Indvandringen of det arktiske Floraclement til Norge.
 Separataftryk af. Nyt. Mag. f. Naturvidensk. Bd. 43, H. iv. Kristiania, 1905.)
 (Both presented by the Author.)
 Witte, Hernfrid. Till de Svenska Alfvarväxternas Ekologi. (Presented by K'gl. Universitets Biblioteket, Uppsala.)

Tropical Africa.

Chevallier, L. Troisième note sur la Flora du Sahara. (Tiré a part du Bull. Herb. Boiss., 2 Ser. Tome vi. (Presented by the Author.)
 Etat Independant du Congo. Mission Emile Laurent, 1903-4. Fasc. III. (Presented.)

Extra-Tropical Asia.

Diels, Dr. L. Über die Pflanzengeographie von Inner China nach den Ergebnissen neuerer Sammlungen. (Sonderabdruck aus der Zeitschrift, der Gesellschaft für Erdkunde zu Berlin, 1905. No. 10.) (Presented by the Author.)

Tropical Asia.

Records of the Botanical Survey of India. Vol. iv, No. 3. An Epitome of the British Indian species of Impatiens. (Presented.)
 Whitford, H. N. The Vegetation of the Lamao Forest Reserve—(1) Reprinted from the Journal of Science, Vol. 1, No. 4, 1906; (2) Vol. 1, No. 6, 1906. (Presented by the Bureau of Science, Manila.)
 The Vegetation of the Lamao Forest Reserve. (From the Botanical Section of the Biological Laboratory, Bureau of Science.) (Presented by the Dept. of the Interior, Bureau of Forestry, Manila.)

Australasia, &c.

Bailey, F. M. Contributions to the Flora of Queensland. (Extracts from Q. Agric. Journ. Vol. xvi, parts 7, 8, 9, and 10; Vol. xvii, parts 1, 2, and 3.)
 The Queensland Flora. General Index. (Both presented by the Author.)
 Cheeseman, F. F. Manual of the New Zealand Flora. 8vo, pp. 1199. (Presented by the Author.)
 Diels, Dr. L. Zur Erforschungsgeschichte des Bellenden-Ker Gebirges, Nord Queensland. (Abdruck aus Dr. A. Petermann's Georg. Mitteilungen, 1904. Heft. XII.) (Presented by the Author.)
 Dixon, W. A. The plants of N.S.W. An analytical Key to the flowering plants (except Grasses and Rushes) and Ferns of the State, set out in an original method, with an up-to-date list of native and introduced flora. 8vo., pp. 322.
 Guppy, H. B. Observations of a Naturalist in the Pacific, between 1896 and 1899. Vol. II. Plant dispersal. 8vo, pp. 627.
 Laing, R. M., and Blackwell, E. W. Plants of New Zealand. 8vo, pp. 456.
 Mueller, Baron F. von. Supplement to the Enumeration of Victorian Plants. (Extra print from the "Victorian Naturalist," May, 1888.) (Presented by A. J. Ewart.)
 Schumann, K., and Lauserback, K. Nachträge zur Flora der Deutschen Schutzgebiete in der Südsee (mit Ausschluss Samoas' und der Karo'inen.) 4to, pp. 446.

Tropical America.

Moore, A. H. A list of plants collected in Bermuda in 1905. 8vo, pp. 22. (Presented by the Author.)
 Ule, E. Ule's Expedition nach den Kautschuk-Gebieten des Amazonenstromes. (Sep.-Abdr. aus Notizblatt. des Königl. bot. Gartens u. Museums zu Berlin, No. 30. (15 März, 1903. (Presented by E. Betsche.)

Austral America.

Fries, R. E. Zur Kenntnis der Alpenen Flora im Nördlichen Argentinien. Inaugural-Dissertation zur Erlangung der Doctorwürde. (Nova Acta Regalæ Societatis Scientiarum Upsaliensis. Ser. iv, Vol. I, No. 1. (Presented by the K'gl. Universitets-Biblioteket, Upsala.)
 Ule, E. Das Übergangsgebiet der Hylæa zu den Anden. (Separat-Abdruck aus Engler's Botanischen Jahrbüchern. 33 Band, 3 Heft., 1903. (Presented by E. Betsche.)

Antarctica.

Diels, Dr. L. Die Vegetation des Hohen Südens. (Naturwissenschaftliche Wochenschrift, No. 5. Den 28 Januar, 1906.) (Presented by Dr. L. Diels.)
 Schenck, H. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition auf dem Dampfer Valdivia, 1898-9.
 I. Vergleichende Darstellung der Pflanzengeographie der subantarktischen Inseln, insbesondere über Flora und Vegetation von Kerguelen.
 II. Ueber Flora und Vegetation von St. Paul und New Amsterdam. Demy, pp. 224; with atlas.

PUBLICATIONS OF COLONIAL AGRICULTURAL DEPARTMENTS.

Western Australia. Mann, E. A. The examination of the West Australian Poison Plants. First progress report, 8vo, pp. 14; second and third progress reports, 8vo, pp. 8. (Presented by the Author.)
 Department of Agriculture, Government Laboratory. Bulletin No. 3. The Chemical work of the Government Laboratory for the year 1905. (Presented by E. A. Mann.)
 New Zealand. Kinsella, J. A. Agriculture in other lands. (Great Britain, Denmark, Canada, South Africa, and Argentine; with special reference to Dairying. (Presented.)
 The public domains of New Zealand. A Synopsis of the Annual Reports of Domain Boards for the year ended 31st Dec., 1904. (Presented by the Public Library.)
 Department of Agriculture. Annual reports for 1902-3, 1904, and 1906. (Presented by T. W. Kirk.)
 Divisions of Biology, Horticulture, and Publications. Annual Report for 1905.

Bulletins Nos.:

1. Report on the Fruit Industry of California.
 2. Sketch plans of Fruit Cannery.
 3. Rust in Oats.
 4. Descriptions of three species of Fruit-fly.
 5. Bee Culture.
 6. Control of Codlin Moth—Otahuhu Orchard.
 7. Potato Diseases.
 8. Nitrogen-fixing Bacteria.
 9. Meteorology in relation to Farming.
 10. Canker of Fruit-trees
 11. Club-root of Cabbage.
 12. Hollyhock Rust.
 13. The Gum-tree Scale.
 14. Diseases of Swede Turnip.
 15. Bean Diseases.
 Technical Papers, No. 1—
 A. Cockayne, A. H. The Facultative Saprophytism of Alternaria Solani.
 B. Brown, T. Termites.
 Chemistry Division—
 Bulletin No. 1.—Phosphate in New Zealand.
 Dairy Division—
 Bulletin No.:—
 7. Practical Treatise on the Acidimeter and its use; with instructions for making Alkaline solution, and the preparation of starters from commercial cultures.
 8. Review of the work of the 1905-6 season.
 9. How to build up a Dairy herd.
 Viticultural Division—Bragato, R. Viticulture in New Zealand.
 Leaflets for Farmers—
 No. 76. Manuring for Potatoes.
 77. Manuring of Turnips and Mangels.
 Leaflets for Gardeners and Fruit-growers—
 No. 48. Onion Mildew.
 49. American Blight of Woolly Aphis.
 50. Diseases of Roses.
 (Presented by T. W. Kirk.)

Europe.

- Bois, D. Nécessité de l' Etude Scientifique des productions naturelles Coloniales. Rapport présenté au Congrès International d' Expansion Economique Mondiale de Mons. 8vo, pp. 3. (Presented by the Author.)
 Kolonial-Handels-Adressbuch, 1906. (Presented by the Kolonial-Wirtschaftlichen Komitee, Berlin.)

Africa.

- Gold Coast. Report upon the Botanical and Agricultural Department for the year 1904. (Presented by the Director of Agriculture.)
 Transvaal. Annual Report, Department of Agriculture, 1903-4. (Presented by the Director of Agriculture.)

West Indies and South America.

- Imperial Department of Agriculture—
 Report on the working of the Department. (Presented by the Exchange Board, Sydney.)
 Pamphlet Series No. 40. Summary of the results of seedling and other canes, together with Manurial Experiments with Sugar-cane at the Experiment Stations, Barbados.
 No. 41. Tobago; hints to settlers.
 42. Manurial experiments with Sugar-cane in the Leeward Islands, 1904-5. (Presented by the Imperial Commissioner.)
 Overzicht der Meteorologische Waarnemingen Gedaan in den cultuurtuin te Paramaribo in het Jar., 1905. (Presented.)
 Inspectie van den Landbouw in West Indie. Bulletin No. 5, Jan., 1906.
 Cacaoproductie in de verschillende landen, &c. Verslag over het Jaar., 1905. (All presented.)
 Dutch West Indies Dept. of Agriculture:—
 Bulletin No. 7. De Beteekenis van Schaduw-Boomen bij de Cacaocultuur. (Presented.)

INDIAN GOVERNMENT PUBLICATIONS.

The Agricultural Ledger of India.

1905.
 No. 3. Salt-petre (Mineral and Metallic Series, No. 22.)
 4. Mallotus Philippinensis (Vegetable Products Series, No. 91).
 5. Taraktogenos Kurzii.
 6. Sorghum vulgare, Pers. The Great Millet or Juar in India.
 7. Crotolaria juncea.
 1906.
 No. 1. Phenix dactylifera.
 2. Costus speciosus (Vegetable Products Series, No. 2). (All presented by the Indian Government.)

Agricultural.

- Madras. Department of Agriculture. Report for the official year 1905-6.
 Vol. III. Bulletin No.:—
 54. Note on irrigation by pumping from a well at Melrosapuram.
 No. 55. The Great Millet or Sorghum in Madras. (All presented by the Department.)

FORESTRY.

- Ajmer-Merwara. Annual Report on the Forest Administration for 1904-5.
 Assam. Progress Report of Forest Administration for 1904-5.
 Bombay Presidency (including Sind). Administration Reports of the Forest Circles for 1904-5.
 British India. Review of Forest Administration for 1903-4.
 Burma. Reports on Forest Administration for 1904-5.
 Central Oudh and School Circles of the United Provinces. Annual Progress Report of Forest Administration for 1904-5.
 Madras Presidency. Annual Administration Report of the Forest Department for the year ending 30th June, 1905.
 Punjab. Progress Report on Forest Administration for 1904-5. (All present:d.)

CANADA, DEPARTMENT OF AGRICULTURE.

Experimental Farms.

- Evidence of Dr. James Fletcher before the Select Standing Committee on Agriculture and Colonization, 1905. The Division of Insects and Plants.
 Evidence of Mr. T. W. Macoun before the Select Standing Committee on Agriculture and Colonization, 1905. Fruit Culture and Potato Growing.
 Evidence of Dr. Charles E. Saunders before the Select Standing Committee on Agriculture and Colonization, 1905. Milling Tests of Wheat.

- Evidence of Dr. William Saunders before the Select Standing Committee on Agriculture and Colonization, 1905. Advancement of Agriculture in Canada.
 Evidence of Mr. Frank T. Schutt before the Select Standing Committee on Agriculture and Colonization, 1905. Fertilizers, Ensilage, Feeds.
 Results obtained in 1905 from trial plots of Grain, Fodder Corn, Field Roots and Potatoes.
 Report of the Director for the years 1904 and 1906.
 Report of the Entomologist and Botanist, 1904.
 Bulletin No.:—
 52. Insects injurious to Grain and Fodder Crops, Root Crops and Vegetables.
 54. On the breeding, feeding and general management of Poultry. Parts 1 and 2. (All presented by the Department.)

FORESTRY AND TIMBER.

Asia.

- Everett, W. H. Bulletin No. 6. Memorandum of mechanical tests of some Indian Timbers. 4to, pp. 7. (Presented by the Government Printing Office, Calcutta.)

Africa.

- Cape of Good Hope. Reports of the Acting Chief Conservator of Forests, and Conservator of Forests, for the year ending 30th September, 1906. (Presented.)
 Uganda Protectorate. Annual Report on the Forestry and Scientific Department for the year ending 31st March, 1906. (Presented.)

America.

- Chrysler, M. A. Reforestation at Wood's Hole, Massachusetts. A study in succession. (From Rhodora, Vol. VII, No. 79, July, 1905.) (Presented by the Author.)
 Forestry and Irrigation, 1905. Parts 1-12. (Presented by the Director, Forest School, Yale University.)

Australasia.

- Victoria. Report of Acting Conservator of Forests for 1905. (Presented.)
 South Australia. Annual Progress Report upon State Forest Administration. (Presented.)
 New Zealand. Report of the Department of Lands—State Forests—for the year 1905-6. (Presented by the Under Secretary for Lands, Wellington.)

UNITED STATES DEPARTMENT OF AGRICULTURE.

- Year Book, 1905.
 Experiment Station Record:—
 Vol. XVI, Nos. 11 and 12.
 XVII, Nos. 1 and 3.
 Report of the Forester, 1905.
 Reprints from the Year-book for 1904:—
 The attitude of lumbermen towards forest fires.
 Progress of Forestry in 1904.
 The determination of timber values.
 Farmers' Bulletin, No.:—
 25. Peanuts; culture and uses.
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 157. The propagation of plants.
 161. Practical suggestions for fruit growers.

164. Rape as a Forage crop.
170. Principles of horse-feeding.
173. A primer of forestry.
182. Poultry as food.
185. Beautifying the home grounds.
188. Weeds used in medicine.
190. Experiment Station work—XXIV.
192. Barn-yard manure.
194. Alfalfa seed.
198. Strawberries.
199. Corn-growing.
200. Turkeys—standard varieties and management.
201. The cream separator on Western farms
202. Experiment Station work—XXVI.
203. Canned fruit, preserves and jellies.
204. The cultivation of mushrooms.
205. Pig management.
215. Alfalfa growing.
220. Tomatoes.
222. Experiment Station Series—XXVIII.
223. Miscellaneous cotton insects in Texas.
228. Forest planting and farm management.
229. The production of good seed corn.
232. Okra, its culture and uses.
240. Inoculation of Legumes.
252. Maple Sugar and Sirup.
253. Raspberries.

Department of the Interior.

Philippine Islands—Bureau of Government Laboratories:—

Bulletin No.:—

34. I. Birds from Mindora and small adjacent islands.
- II. Notes on three rare Luzon birds.
5. I. New noteworthy Philippine plants—IV.
- II. Notes on Cuming's Philippine plants in the Herbarium of the Bureau of Government Laboratories.
- III. Notes on Philippine Gramineæ.
- IV. Scitamineæ Philippinensia.
- V. Philippine Acanthaceæ.
36. A hand-list of the birds of the Philippine Islands.

Biological Laboratory, No.:—

32. I. Intestinal Hemorrhage as a fatal complication in Amœbic Dysentery and its associations with Liver abscess.
- II. The action of various chemical substances upon cultures of Amœbæ.
- III. The pathology of intestinal Amœbiasis.
33. Further observations on Fibrin Thrombosis in the Glomerular and other renal vessels in Bubonic Plague.

Bureau of Forestry—

The Forest Manual.

Report of the Chief for the period from September, 1903, to August, 1904.

Bulletin Nos.:—

1. Report on investigations made in Java in 1902.
3. A compilation of notes on Indiarubber and gutta-percha.

Bureau of Animal Industry—

Circular No.:—

84. Enzymes in Cornstalks and their relation to Corn-stalk disease.
85. The Tape-worms of American chickens and turkeys.
86. Alfalfa for the growing and fattening of animals in the Great Plains regions.

Division of Botany—

Circular No.:—

9. Wild Garlic.
21. Yams in the West Indies.

Bureau of Chemistry—

Bulletin No.:—

93. Experiments in the culture of Sugar-cane and its manufacture into table syrup.
94. Studies on apples
97. Studies on peaches.

Circular No.:—

24. Analyses of the Mexican plant *Tecoma mollis*, H.B.K.

Office of Experiment Stations—

Bulletin No.:—

160. School gardens: A report upon some co-operative work with the normal schools of Washington, with notes on school garden methods followed in other American cities.

Circular No.:—

62. List of abbreviations employed in Experiment Station Record for titles of periodicals.

Bureau of Forestry—

Bulletin No.:—

32. A working plan for forest lands near Pine Bluff, Arkansas.
40. A new method of Turpentine orcharding.
41. Seasoning of timber.
42. The woodlot; a handbook for owners of woodlots in Southern New England.
53. Chestnut in Southern Maryland.
56. A working plan for forest lands in Berkeley County, South Carolina.
57. Federal and State Forest Laws.
58. The Red Gum.
59. The Maple Sugar Industry.
60. Report of an examination of a forest tract in Western North Carolina.
61. Terms used in Forestry and Logging.
62. Grazing on the Public lands
63. The natural replacement of White Pine on old field in New England.
64. Loblolly Pine in Eastern Texas, with special reference to the production of cross-trees.
65. (Revised Edition). Advice for forest planters in Oklahoma and adjacent regions
66. Forest Belts of Western Kansas and Nebraska.
67. Forest Reserves in Idaho.
68. A working plan for forest lands in Central Alabama.

Circular No.:—

25. Forestry and the lumber supply.
34. Practical results of the cup and gutter system of Turpentine.
35. Forest preservation and national prosperity.
36. The forest service; what it is and how it deals with forest problems.
37. Forest planting in the sand-hill region of Nebraska.

Division of Forestry—

Bulletin No.:—

17. Check list of the forest trees of the United States; their names and ranges.

Bureau of Plant Industry—

Bulletin No.:—

37. Disease resistance of potatoes.
43. Japanese Bamboos and their introduction into America.
74. The Prickly Pear and other Cacti for Stock.
78. Improving the quality of wheat.
80. Agricultural explorations in Algeria.
81. Evolution of cellular structures.
82. Grass lands of the South Alaskan Coast.
83. The vitality of buried seeds.
86. Agriculture without irrigation in the Sahara Desert.
90. Part I. The storage and germination of Wild Rice seed.
- IV. The poisonous action of Johnson Grass
92. Date varieties and date culture in Tunis.
100. Cranberry spraying in 1905.

Circular No.:—

18. Crimson Clover seed.

Office of Secretary—

Circular No.:—

14. Adulteration of Alfalfa Seed and Red Clover Seed.
15. Adulteration of Kentucky Blue Grass and Orchard Grass Seed.

Bureau of Soils—

- Bulletin No. 30. The mineral constituent of the Soil Solution.

Bulletins of United States Experiment Stations.

Alabama Agricultural Experiment Station.

Bulletin No. 135. Diseases of Sweet Potatoes in Alabama.

California Agricultural Experiment Station.

Bulletin No.:—

166. Spraying for Scale Insects.
 167. Manufacture of Dry Wines in hot countries.
 168. Observations of some Vine Diseases in Sonoma County, Cal.
 169. Field observations upon the tolerance of the Sugar Beet for Alkali.
 170. Studies in Grasshopper Control.
 171. Commercial Fertilisers.
 172. Further experience in Asparagus Rust Control
 173. Commercial Fertilisers.
 174. A new wine-cooling machine.
 175. Tomato Diseases in California.
 176. Sugar Beets in the San Joaquin Valley.
 177. A new method of making dry Red Wine
- Circular No. 15. What a University Farm is for

Colorado Agricultural Experiment Station.

Bulletin No. :—

102. Feeding Steers on Sugar-Beet Pulp, Alfalfa Hay, and Ground Corn.
103. The thorough Tillage System for the Plains of Colorado.
104. A Rust-resisting Cantaloupe.
105. A new Apple Rot.
106. Pruning Fruit Trees.
107. Peach Mildew.
108. Development of the Rockyford Cantaloupe Industry.
109. Cultural methods for Sugar Beets.
110. Alfalfa.
111. Alfalfa. (A synopsis of Bulletin No. 35.)
112. A Hopperdozer.
113. Larkspur and other poisonous plants.
114. Insects and Insecticides.
115. Fertilised experiments with Sugar Beets.

Connecticut Agricultural Experiment Station.

29th Annual Report.

Florida Agricultural Experiment Station.

Bulletin No. :—

82. A Preliminary Report on Growing Irish Potatoes.
83. Pineapple Culture.
84. iii. Fertilizer Experiments.
- iv. Handling the Crop.
85. Second Report on Pecan Culture.

Hawaii Agricultural Experiment Station.

Report on Agricultural Investigations in Hawaii, 1905.

Bulletin No. :—

3. Insecticides for use in Hawaii.
9. Citrus Fruits in Hawaii.
11. The Black Wattle (*Acacia decurrens*) in Hawaii.
12. The Mango in Hawaii.
13. The Composition of some Hawaiian Feeding Stuffs.

Press Bulletin No. :—

15. Lime as an Essential Factor in Forage.
16. The Avocado Mealy-Bug.
17. The Mango Weevil.

Illinois Agricultural Experiment Station.

Bulletin No. :—

104. Field experiments and observations on Insects injurious to Indian Corn.
105. The Farmer's Vegetable Garden.
106. Spraying Apples.
107. Comparative experiments with various insecticides for San Jose Scale.
108. Spraying Apples for Plum-curculio.
109. The location, construction, and operation of Hog Houses.
110. Storage, barn, sheds, feed lots, and other equipment for feeding experimental cattle in car-load lots.
111. Maintenance rations for Beef-breeding Cows.

Indiana Agricultural Experiment Station.

Bulletin No. 114. Winter Wheat.

Kansas Agricultural Experiment Station.

Eighteenth Annual Report of the Experiment Station.

Bulletin No. :—

130. Steer-feeding experiment, VII, 1903-4.
131. Care of Dairy Utensils.
132. Western Feeds for Beef production.
133. Alfalfa Seed.
134. The Alfalfa Seed Crop and Seedling Alfalfa.
136. Press Bulletins Nos. 125-151.
137. Variations in the Test of Separator Cream.
138. Effects of Bacteria in Washwater of Butter.
139. The Study of Corn.

Press Bulletins Nos. 148-152.

Kentucky Agricultural Experiment Station.

Bulletin No. :—

120. (i.) Some tree and wood infesting Insects.
- (ii.) Cabbage Snakes.
121. Commercial Fertilizers.
122. Corn.

Louisiana Agricultural Experiment Station.

Eighteenth Annual Report of the Agricultural Experiment Stations of the Louisiana State University and A. and M. College for 1905.

Bulletin No. :—

85. Black-leg.
86. Our available Stock-foods.

Maryland Agricultural Experiment Station.

Nineteenth Annual Report.

Bulletin No. :—

105. Fumigating Nursery Stock
107. Spraying experiments for San Jose Scale
108. Irish Potato Diseases.
109. Mosquitoes.

Maryland Agricultural College.

Quarterly No. :—

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| 30. Analyses of Commercial Feeding Stuffs sold in Maryland. | |
| 31. Do | do |
| 32. Do | do |

Michigan Agricultural College.

Bogue, E. E. Educational requirements for the profession of Forestry. Reprint, Sixth Annual Report of the Michigan Academy of Science.)

A sand-dune or sand blow in Neways County. (Reprint, Report of Forestry Commission, 1884.)

Forestry: Forestry Influences; the Farm Woodlot.

Forestry Plantations in Michigan. (Reprint from Sixth Annual Report of the Michigan Academy of Science.)

Annual Rings of tree growth. (Reprint from monthly Weather Review, June, 1905.)

Extension Bulletin No. 10. Forestry.

Bulletin. August, 1905. Forestry at Michigan Agricultural College.

Minnesota Agricultural Experiment Station.

Twelfth and Thirteenth Annual Reports.

Missouri Agricultural Experiment Station.

Bulletin No. :—

71. The Fruit-tree Leaf Roller.
72. Alfalfa-growing in Missouri.

Nebraska Agricultural Experiment Station.

Sixteenth Annual Report.

Bulletin No. :—

75. Feeding experiments with Cattle and Pigs.
76. Experiments with Dairy Herd.
77. Poisoning of Cattle by Common Sorghum and Kafir Corn.
78. Macaroni Wheats.
79. Experiments in Orchard Culture.
80. Do mulching Garden Vegetables.
81. Do the Culture of the Sugar Beet in Nebraska.
82. Kherson Oats.
83. Co-operative variety tests of Corn in 1902 and 1903.
84. Pasture, meadow and forage crops.

Press Bulletin No. 18.

New Hampshire Agricultural Experiment Station.

Bulletin No. :—

120. The dairy industry in New Hampshire.
121. The Gipsy Moth in New Hampshire.
122. The Brown Tail Moth in New Hampshire (Second Report).
123. Inspection of Fertilizers in 1905.
124. The inspection of Feeding Stuffs in 1905 in co-operation with the State Boards of Agriculture.

New Jersey Agricultural Experiment Station.

Twenty-sixth Annual Report of the New Jersey State Agricultural Experiment Station and Eighteenth Annual Report of the New Jersey Agricultural College Experiment Station, 1905.

Bulletin No. :—

188. Analyses of fertilizer supplies, home mixtures, and special compounds.
189. Dried Beet Pulp as a substitute for Corn.
190. Alfalfa.
191. Seed distribution of 1904 and for 1905.
192. Breeding Sweet Corn.
193. Concentrated Feeding Stuffs.
194. Spraying.

New York (Cornell) Agricultural Experiment Station.

Bulletin No. :—

231. (1) Second Report on the forcing of Strawberries.
- (2) Notes on the forcing of Tomatoes, Cucumbers, and Melons.
232. Experiments on the influence of Fertilizers upon the yield of Timothy Hay when grown in Dunkirk Clay-Loam in Tompkin's County, New York.
233. Two new Shade-tree Pests.
234. The Bronze-Birch Borer.
235. Co-operative Spraying Experiments.
236. The Blight Canker of Apple-trees.
237. Alfalfa.
238. Buckwheat.
239. Some Diseases of Beans.
240. The influence of Mushrooms on the growth of some plants.

New York (Geneva) Agricultural Experiment Station.

- Bulletin No.:—
268. Inspection of Feeding Stuffs.
 269. Winter injury to Fruit Trees.
 270. The quality of commercial cultures for Legumes.
 271. The adaptability of concentrated by-products for Poultry Feeding.
 272. Report of Analyses of samples of fertilizers collected by the Commissioner of Agriculture during 1905.
 273. Spraying for San José Scale.
 274. Director's Report for 1905.
 275. Apple districts of New York with varieties for each.
 276. Varieties of Strawberries and cultural directions.
 277. The Bang Method of controlling Tuberculosis with an illustration of its application.
 278. Varieties of Raspberries and Blackberries under cultural directions.
 279. Potato spraying experiments in 1906.
 280. Inspection of Feeding Stuffs.

Oklahoma Agricultural Experiment Station.

Fifteenth Annual Report, 1905-6.

- Bulletin No.:—
68. Soil inoculation.
 69. Small fruits
 70. Hardy Bermuda Grass.
 71. Alfalfa.
 72. Tests of Dips as Lice Killers.

Oregon Agricultural Experiment Station.

- Bulletin No.:—
87. Canning fruit and vegetables; preserving fruit juices.
 88. San José Scale.

Pennsylvania Agricultural Experiment Station.

- Bulletin No.:—
73. Distillers' Dried Grains *vs.* Cotton-seed Meal as a source of Protein.
 74. Methods of Steer Feeding.
 75. Forage and soiling experiments, 1904.
 77. Small Fruits in 1905.

Rhode Island Agricultural Experiment Station.

Eighteenth Annual Report, 1904-5, Part 2.

- Bulletin No.:—
107. Soil treatment in Greenhouse culture.
 109. A comparison of the results obtained by the method of cultures in parrifined wire pots with field results on the same soil.
 110. Commercial Fertilizers.
 111. Potatoes.
 113. Continuous Corn Culture.
 115. Commercial Fertilizers.

Tennessee Agricultural Experiment Station.

Vol. XVIII, No. 2. Small Fruits and Grapes.

Vermont Agricultural Experiment Station.

Eighteenth Annual Report.

- Bulletin No.:—
117. Commercial Feeding Stuffs.
 118. Do do
 119. Abstract of Eighteenth Annual Report.
 120. Planting White Pine in Vermont.
 121. Commercial Fertilizers.
 122. Disease resistance of Potatoes.
 123. Commercial Fertilizers.

Virginia Agricultural Experiment Station.

- Bulletin No.:—
154. The inoculation and cultivation of Alfalfa.
 155. Meteorological data and bloom notes of Fruits.
 156. Gluten and Cotton-seed Meal with Silage, Hay, and Stover for Dairy Cows.
 157. Silage, Hay, and Stover in Beef-making.
 158. Milk Fever: Its causes, symptoms, and successful treatment.
 159. Soil inoculation with artificial cultures.
 160. The influence of selected yeasts upon Fermentation.
 161. Varieties of Fruit for the Home Orchard.
 162. Improving the quality of Cream from inferior Milk.

West Virginia Agricultural Experiment Station.

- Bulletin No.:—
97. Commercial Fertilizers.
 98. Raising chicks artificially.
 99. Experiments with Fertilizers.
 100. The Grape Curculio.
 101. Experiments in the Manuring of a Meadow.
 102. Poultry Experiments.
 103. Occurrence of Barium in the Ohio Valley Brines. Relation to Stock Poisoning.
 104. The Ripe Rot or Mummy Disease of Guavas.
 105. Tubercles on Legumes with and without Cultures.
 106. Feeding experiments with Milch Cows.
 107. A test of different Sprays for the San José Scale.

Wyoming Agricultural Experiment Station.

- Bulletin No.:—
67. Duty of Water.
 68. Ration experiments for 1904-5.
 69. Digestion experiments with Wethers.
 70. Wyoming forage plants and their chemical constitution.

Alaska Agricultural Experiment Station.

Bulletin No. 2. Vegetable-growing in Alaska.

Cuba.

Boletín Oficial de la Secretaria de Agricultura, Industriay Comercio. Vol. I, Nos. 3, 4, and 5.

Estacion Central Agronomica.

- Bulletin No.:—
3. Coffee-Leaf Miner and other Coffee Pests.
 4. Tomato Culture.
 5. Green Manures.

Circular No.:—

18. Los Hongos y Bacterias en relacion con las enfermedades de las Plantas.
19. Sistema Moderno de Siembra de Caña.
20. La Apicultura en Cuba.

Porto Rico Agricultural Experiment Station.

Bulletin No. 6. The Yautias or Taniers of Porto Rico. (All these publications were presented.)

SOCIETIES NOT UNDER UNITED STATES GOVERNMENT CONTROL.

Sixteenth Annual Report of the Department of Parks and Boulevards, Detroit, Michigan, 1905. (Presented by the Commissioners.)

Hawaii.

Board of Commissioners of Agriculture and Forestry. Second Report for the year ending 31st December, 1905. (Presented by the Commissioners.)

Sugar Planters' Association.

Report of the Experiment Station Committee for the year ending 30th September, 1905.

Bulletin No.:—

1. Part 9—Leaf-hoppers and their enemies.
- Part 10—Leaf-hoppers and their natural enemies.
2. Preliminary notes on Root Disease of Sugar-cane. (All presented by the Secretary.)

HORTICULTURE.

Bunce, Daniel. The Australian Manual of Horticulture, including a catalogue of the Colony of Victoria, botanically arranged and named, with directions for their removal and culture. Small 8vo, pp. 130. (Third edition.)

Harwood, W. S. New Creations in plant life; an authoritative account of the life and work of Luther Burbank. 8vo, pp. 368.

Klebahn, H. Vortrag über die Tulpe, ihre Geschichte, ihre Kultur, ihre Feinde. (Presented by the Director, Botanical Museum, Hamburg.)

Zacharias, E. Über den mangelhaften Ertrag der Vierländer Erdbeeren. (Separat-abdruck aus den Verhandlungen des Naturio. Vereins in Hamburg, 1903. 3 Folge xi.) (Presented by the Director, Bot. Staatsinstituten, Hamburg.)

California Garden. Vol. I, No. I. (Presented by the Secretary, Algeria Association, California.)

ECONOMIC BOTANY.

Johnson, W. H. Report on Cocoa and Cola industries in the Gold Coast. 8vo, pp. 10. (Presented by the Director of Agriculture, Botanic Gardens, Aburi.)

Wright, Herbert. Hevea Brasiliensis or Para Rubber; its Botany, Cultivation, Chemistry, and Diseases. 8vo, pp. 179. Cultivation of Tea in the Caucasus. (Diplomatic and Consular Reports, Russian Foreign Office, 1905.) (Presented by the Exchange Board, Sydney.)

Notice sur le Camphre. Description, Regions productives de Camphrier (Cinnamomum Camphora, Nees). 8vo, pp. 4. (Presented by the Exchange Board, Sydney.)

The use of Wood-pulp for Paper-making. Paper read by S. C. Phillips. (Extracted from the Journal of the Society of Arts, Vol. LIII, 19th May, 1905; issued as a supplement to the Indian Forester.) (Presented.)

AGRICULTURAL CHEMISTRY AND SOILS.

Hilgard, E. W., and Loughridge, R. H. Endurance of drought in soils of the arid region. (Reprint from Report of 1897-8, California Agric. Experiment Station.) (Presented by the Exchange Board, Sydney.)

SERIALS, NON-AUSTRALIAN.

- Heckel, E. Annales de l'Institut Colonial de Marseille, 1905. (Presented by the Author.)
The Journal of the Board of Agriculture—Vol. XII, Nos. 8, 9, 10; Vol. XIII, Nos. 1 and 2.
(All presented by the Exchange Board, Sydney.)
Transactions of the Linnean Society of London. Vol. xx, Parts 1, 2, and 3. Also General Index, Vols. XXVI—XXX. (Presented by J. H. Maiden.)
Bulletin of the Imperial Institute. Vol. III, parts 1, 2, and 3.
Science Progress in the 20th Century. A quarterly Journal of Science Thought.
The Bulletin of the College of Agriculture, Tokio Imperial University, Japan. Vol. VII, No. 1. (Presented.)
The Philippine Journal of Science, 1906. (Presented.)
Facultad de Ciencias Médicas de Buenos Aires. Trabajos del Museo de Farmacología:—
No. 1. Dominguez, J. A. Datos Para la Materia Médica Argentina. Tomo I, pp. 278.
2. Pennington, M. S. Uredineas del Delta del Rio Paraná. Segunda Parte, pp. 12.
3. Dominguez, J. A. Note sur deux gommés de la République Argentine, pp. 1–11.
Autran, Eug. Note sur la Tropæolum Patagonicum, Speg., pp. 12–15.
4. Autran, Eug. Note sur le Coá-éhé (*Eupatorium Rebaudianum*), pp. 14.
5. Autran, Eug. Contribution à l'étude de la Chinchilla (*Eriomys laniger*), pp. 31.
6. Dominguez, J. A. Contribucion al estudio de cornuezoelo—*Sclerotium Clavus*, DC., que se desarrolla en las espigas de Phleum et Bromus sp. de Tierra del Fuego, pp. 15.
7. Synopsis de la Matière Médicale Argentine, pp. 24.
8. Pennington, M. S. Medicina popular en las islas del Delta del Rio Parana, pp. 11.
9. Mainini, Carlos. La *Vallesia glabra* (Cav.), Link (Estudio botánico químico y farmacodinámico), pp. 172.
10. Autran, Eug. Enumération des plantes récoltées par Miles Stuart Pennington pendant son premier voyage à la Terre de Feu en 1903, pp. 23.
(All presented by Eug. Autran.)

SERIALS, AUSTRALIAN.

- New South Wales:—
The Public Instruction Gazette. (Presented by the Minister for Public Instruction.)
Journal of the Royal Society for 1905. Vol. XXXIX. (Presented by the Hon. Secretary.)
Proceedings of the Linnean Society for 1905. (2 copies.) (Presented by the Curator, Technological Museum.)
Victoria:—
Proceedings of the Royal Society. Vol. XVIII (New Series), part 2; also Vol. XIX, part 1. (Presented by the Society.)
Queensland:—
Proceedings of the Royal Society. Vol. XIX, Part 2. (Presented by the Society.)
Acclimatisation Society, Forty-third Annual Report. (Presented by the Society.)
Tasmania:—
Papers and Proceedings of the Royal Society for the years 1900–1. (Presented by J. H. Maiden.)
New Zealand:—
Transactions and Proceedings of the New Zealand Institute, 1905. Vol. XXXVIII. (Presented by the Secretary.)

MISCELLANEOUS—NON-BOTANY.

- Coghlan, T. A.:—
Statistical View of the Progress of N.S.W.
N.S.W.: Statistical Register for 1904 and previous years. Part x. Private Finance.
XI. Land Settlement.
XIII. Industrial Wages.
XIV. Shipping and Commerce.
(All presented by the Author.)
Hall, W. H.:—
N.S.W.: Statistical Register for 1905 and previous years. Part I. Population and Vital Statistics.
II. Public Finance
III. Education, Science, and Art.
IV. Miscellaneous.
V. Local Government.
VI. Manufactures and Works.
Statistics: Six States of Australia and New Zealand, 1681–1904.
(All presented by the Author.)

- Merck, E. A selection from the list of modern therapeutic agents manufactured by E. Merck, Darmstadt. Annual Reports. Complete series. Vol. XIX, 1905.
(Both presented by the Author.)
Procter, H. R. and Bennett, H. G. An investigation of the Barium and Calcium salts of the Gallic, Protocatechuic, and Digallic Acids. (Reprint from Journal of Society of Chemical Industry, 31st March, 1906.)
A method for the examination of Marine Oils, Part 1. (Reprint from the Journ. Soc. Chem. Industry, Yorkshire section.)
(Presented by the Authors.)
Procter, H. R., and Holmes, W. E. The oxidation of oils. Part 1. (Reprint from Journ. Soc. Chem. Industry, 30th December, 1905.) (Presented by the Authors)
Procter, H. R., and McCandlish, D. The estimation of Ammonia in used lime liquors. (Reprint from Journ. Soc. Chem. Industry, 31st March, 1906.) (Presented by H. R. Procter.)
Cambridge University. Report of the Library Syndicate for the year ending 31st December, 1905. (Presented.)
Supplement to the Board of Trade Journal. Imperial Institute of the United Kingdom, the Colonies, and India:—
Vol. I. Nos. 1, 2, 3.
II. Nos. 1, 2, 3, 4.
United States Geological Survey. Mineral Products of the United States, calendar years 1895–1904. (Presented.)
Iowa Geological Survey. Vol. xv. Annual Report, 1904; with accompanying papers. (Presented by the Exchange Board, Sydney.)
Australian Museum. Fifty-first Annual Report of the Trustees for the year ended 30th June, 1905. (Presented by the Trustees.)
Fisheries of N.S.W. Report of the Board for the year 1904. (Presented.)
N.S.W. Lands Department. The Dorrigo Crown Lands for settlement. Small leaf., pp. 20. (Presented by the Minister for Lands.)
Queensland:—
Department of Home Secretary. North Queensland Ethnography. Bulletin No. 8, November, 1905. Notes on Government, Morals, and Crime. (Presented.)
Department of Lands. Annual report for the year 1905. (Presented.)
Department of Mines. Geological Survey of Queensland, Some Croydon Gold Mines; with 14 plans and 12 plates.

Some Croydon Gold Mines; plan 2, showing underground workings on the Goden Gate line of reef.
Publication No.:—
201 Black Ridge, Clermont.
(1) Preliminary Report.
(2) Supplementary Notes.
203. Graphite in Queensland.
205. Second Report, Oaks View Gold Mines. (Presented.)
South Australia—
A review of the mining operations during the year ended 30th June, 1906. (Presented by the Secretary for Mines.)
Northern Territory (North-western District)—
Reports (Geological and General) resulting from the explorations made by the Government Geologist and Staff during 1905. (Presented by the Government Geologist.)
New Zealand—
Report on the Department of Lands for the year 1905–6. (Presented by the Exchange Board, Sydney.)
British New Guinea—
Annual Report for the year ending 30th June, 1904. Also for 1905. (Presented by the Government Secretary's Department, Port Moresby.)
Onze Houding in zake Staats-exploitatie onzer Spoorwegen. (Vereeniging van Nederlandsche Werkgevers. No. 17 en No. 44) (Presented by J. M. H. Snissaert.)

GOVERNMENT DOMAINS.

(MR. JAMES JONES, Overseer.)

Amusements—Gymnasium.—The gymnasium is still very popular with young folks. On one afternoon in holiday time—it happened to be January 16th—156 were counted, mostly school children, enjoying themselves to their hearts' content. There were 23, including nurses and babies, on the go-round wheel at one time. There are always a few willing volunteers to do the pushing round business.

This wheel being a great source of amusement, another nearly similar one has been fitted up, on an improved principle, so that a 5-year old boy or girl can spin it round easily, and I have not heard any complaints about it.

Music.—Owing to the many inducements offered to the various city and suburban bands to play programmes of music in the urban parks and city halls, the Domain has been somewhat neglected in this respect.

The band of the Royal Australian Artillery, which is generally looked for on Wednesday afternoons, has been elsewhere on several occasions.

The following is a list of performances in the Domain Rotunda.

Royal Australian Artillery Band, Wednesday afternoons	...	...	17
Railway Military Band, Sunday, February 4	...	...	1
Naval Brigade Band, Sunday, June 17	...	...	1
Railway Military Band, Sunday, July 29	...	...	1
Salvation Army Band, Sunday, October 21	...	...	1
South Sydney Orange Band, Sunday, November 11	...	...	1
Newtown Brass Band, Sunday, November 18	...	...	1
Total	...	...	23

On Wednesday afternoon, 10th January, 900 persons were counted passing out of the Domain by St. Mary's Gates, within twenty minutes of the band playing "God save the King." As nearly as many go out by Macquarie-street, and some by Woolloomooloo, and several wander through the Botanic Gardens; the audience must have been quite 2,000.

Band Stand.—It seems to be insufficiently known to some suburban and country town bandmasters that this conveniently situated and well appointed music rotunda is available, upon a few days' notice, for the performance of musical programmes, free of all charge and trouble to the musicians. It is amply furnished with music desks for thirty performers, and a small special stand for the conductor. New sun-blinds have been fitted up recently by the Public Works Department.

Roads.—The most important work of the year, or of several years past, has been the deviation of the road between Palmer-street entrance and its intersection of the Art Gallery road, near the Director's residence. This road, at the upper end overlooking Woollomooloo Bay, had a dangerous incline of 1 in 9. The surface was necessarily asphalted, and became quite smooth and slippery in spite of frequent applications of hot tar, the consequence being that accidents were of almost daily occurrence. Several horses were so badly injured that they had to be destroyed, whilst others escaped more lightly.

The light vehicular traffic between Macquarie-street and Woolloomooloo has greatly increased within the last three or four years, and hence the necessity for something being done to improve the grade of this road.

By making a slight deviation in the roadway, and filling in the hollow part to a depth of 10 feet, thus drawing out the incline over 2 chains in length to a distance of $8\frac{1}{2}$ chains, the grade has been altered from 1 in 9 to 1 in 17 or 18.

The road can now be ballasted and macadamised in the ordinary way.

The excavated stuff from the foundations of the Mitchell Library was utilised for this purpose, as well as similar material from Martin Place, Circular Quay, Liverpool-street, and other places throughout the city.

Altogether, some 14,000 loads of foundation excavations were used in this work of improvement, besides hundreds of loads of soil and top-dressing from various quarters for the embankment and slopes.

The embankment on the lower side has now a perpendicular depth of 26 feet 6 inches; base, 55 feet; slope or hypotenuse, 60 feet. These measurements were made near to where the flight of stone steps was formerly situated.

These thirty-two steps will be re-created, with several additional ones, when the ground is sufficiently consolidated.

Besides general repairs where required, a section of the main carriage roadway, 80 yards long by $7\frac{1}{2}$ yards wide, directly opposite the Art Gallery, was re-macadamised with 90 tons of 2-inch gauge hand-broken blue metal from the Kiama quarries in September.

When the metal was evenly spread, a light covering of clay and blue metal screenings was applied, and the road lightly watered and rolled. The following day, when the surface was dry, a dressing of crude paraffine oil was applied with watering cans at the rate of 1 gallon to 3 square yards (No. 1).

Following this, a section of the older roadway, 50 yards in length (say No. 2), was dressed with half the quantity of oil, 1 gallon to 6 square yards. This seemed sufficient, as the hard road surface would absorb no more.

No. 3.—A section, 98 yards long, was left unoled, to the main crossing with Macquarie-Palmer road.

No. 4.—A section, 50 yards, near the Director's residence, was top-dressed with blue metal screenings, and then sprinkled with oil at the same rate of 1 gallon to 6 square yards.

Results.—Three months later (31st December):—

The first section, No. 1, being fresh and loose, absorbed the oil rapidly without much show on the surface. The metal took a longer time to get solid, had to be re-blinded with clay in patches, and re-watered several times; but ultimately makes a grand, smooth, dustless road.

I am of opinion that, with blue metal, application of oil at the making of the road is not the best time, but a week or so after.

The oil, which goes to the bottom, is lost, or nearly so.

No. 2.—The 50 yards of old surface oiled has remained dustless and comparatively smooth, but now requires another top-dressing.

No. 3.—Ninety-eight yards undressed with oil shows a more lumpy surface, as the fine dust has been constantly blown away.

No. 4.—Fifty yards, which was oiled over the blue-metal screenings, still shows a smooth, soft surface. The screenings were crunched into dust by the wheel traffic, but not blown away. They are now, however, beginning to dry up.

No. 4 appears to be the best mode of application, but all require renewal after three months' wear on these roads.

The oil in each case was applied when nearly hot, as it spreads more easily and more evenly. Ordinary watering cans and portable boiler were used.

Seats, Fencing, Painting.—No new seats have been added, but 200 seats have been painted, and repairs effected to several others.

One hundred and twenty-three rods of new one-rail fence have been erected, and much of the old fencing repaired; new posts and rails supplied where necessary, but the old material utilised where possible.

A painter and a carpenter have been employed on these improvements during seven months of the year. 400 rods of fencing have been repainted.

Trees, Plantations.—March 30th. Four Norfolk Island Pines (*Araucaria excelsa*) at Mrs. Macquarie's Point, the terminus of the road and turning point for vehicles.

Friday, 28th September. At the Art Gallery, north end, to correspond with one similarly situated at the south end, one Port Jackson Fig (*Ficus rubiginosa*) was planted by the President of the Trustees (Mr. E. de Faur), in the presence of the Trustees, and of the Director of the Botanic Gardens.

The iron hurdle fence surrounding this tree was constructed from the protection guard fence until lately enclosing the foundation stone of the projected New South Wales Parliament Houses. This stone was laid near Governor Bourke Statue in the Outer Domain on 26th January, 1888, by His Excellency Lord Carrington, in the presence of six other Australasian Governors, and a large gathering of citizens.

The foundation stone was removed from its position last May, to make room for the new Mitchell Library building.

Other trees and shrubs planted during the year were as follows:—

One *Cedrus deodara* and one *Ulmus montana* on level ground at Farm Cove.

One *Ulmus campestris purpurea*, on slope near the cricket ground.

One *Ulmus campestris purpurea*, near the Agricultural Museum.

Seven *Brachylaena discolor*, side of road opposite Farmer's Baths.

One *Taxodium mexicanum*, near the old Museum.

Pruning and Removal of Trees.—A large amount of tree-pruning has been carried out in various parts of the Domain.

Many of the Moreton Bay fig-trees, planted about fifty years ago, have grown into massive proportions.

A few have been carefully measured, and it is found that they have now a spread of branches 90 to 100 feet in diameter. The stems at 3 feet from the ground measure 10 feet circumference, and the heights vary from 50 to 80 feet.

When planted in clumps or enclosures with other trees, of whatever species, they soon monopolise the ground as well as the air space, and no tree near them has any chance of flourishing. They make fine shade trees in open ground, or alongside broad avenues, in the poorest, rockiest soil. As they increase in age, however, the branches assume a horizontal, and later on a drooping position, and then some pruning or lopping back becomes necessary.

The front row of fig-trees running parallel with the Garden Palace Grounds fence was lopped back during the month of January, to about two-thirds of their size, and they have now (at the end of the year) already re-formed healthy, symmetrical, well-balanced heads.

One of these trees (third from bridge) before cutting measured as follows:—

Height, 60 feet.

Spread of branches, 93 feet.

Girth of stem, 4 feet from ground, 11 feet 3 inches.

Girth at ground-level, 32 feet.

Six dray loads of branches were removed when the lopping was completed, and this is not an isolated or maximum specimen.

Summer time seems to be best for pruning Moreton Bay and Port Jackson fig-trees. The bleeding then is hardly perceptible. In every case, the saw-cuts are smoothed with a broad sharp chisel, and then tarred over with a paint brush.

On March 27th the tail end of a tornado, which caused some destruction of property and life at North Sydney, passed over the Domain with no serious damage beyond the breaking of three or four cart loads of branches, &c.

On other occasions, mostly during rainstorms, the following trees were blown down:—Two old tall Lombardy Poplars; one *Robinia pseud-acacia*; one old English Oak, much attacked by white ants.

Two *Pinus insignis* died apparently from the effects of dryness and root canker.

Two *Eucalyptus saligna*, var. *botryoides*, one Camphor, one *Pinus insignis*, and one *Ficus rubiginosa* have been removed during the year to improve the vista from the Art Gallery.

One old *Banksia integrifolia*, one *Pinus insignis*, one *Quercus pedunculata*, and one *Eucalyptus tereticornis* were removed for the road deviation already described.

Two Oaks and one Stone Pine were sacrificed to make room for the new sheds at the Domain Lodge.

Grass.—The planting of grass roots—Couch and Buffalo—on sloping banks and bare patches, and the necessary watering of the same, has occupied much attention.

Owing to long spells of dry weather, shallow soil in many places, too much shade from trees, and trampling by crowds of people in certain places on Sunday afternoons, large patches of bare ground resulted.

During

During the four weeks previous to 9th April, when Holman Hunt's picture, "The Light of the World," was on view at the Art Gallery, a large area of newly planted grass and grass seed near the Band Stand, in fine young growth, was trampled to extinction, nothing but dust and gravel remaining.

To improve this state of affairs, it has been found necessary to temporarily fence in small areas and replant with grass roots and sow seed, after the ground had been loosened and heavily top-dressed with good loam or leaf mould.

Light.—Meters have been removed from the public latrines. Three new lanterns of improved design have been fixed on the lights, which are henceforth to be charged at £4 10s. per lamp per annum. These three lamps are lighted every night in the year.

The other forty-nine lamps in the Domain have been kept in good order, at a cost of £4 per annum each, by the Gas Company, and have given satisfaction.

There are two proposals for better illumination of the Domain—one by increasing the number of gas lamps, and the other by the use of electricity, which would be more expensive.

It is a matter for regret that this fine reserve continues almost unilluminated at night.

Government Swimming Baths.—Mr. S. J. Hellings is in charge. His assistant, R. Lawler, resigned to join the Fire Brigades Department, and was succeeded on 1st February by W. Stonz, who, after a period of six months, resigned and was succeeded by Joseph Maguire.

The bath and precincts have been kept clean, and the bath has been well patronised by the public.

Kick-off boards have been fixed at both ends, thus making the bath available for competition practice.

Art Gallery.—The handsome portico to the National Art Gallery was thrown open to the public for the first time on Sunday, 18th March. The matter was expedited to allow free egress to the numerous visitors crowding to see "The Light of the World." This celebrated picture attracted crowds of visitors daily, but chiefly on Sundays.

The semi-circular area in front of the Art Gallery, which was so long enclosed by an unsightly paling fence, has been cleared, opened up, kerbed, and asphalted, and now forms a pleasing open space in conjunction with the main carriage road in front of the building.

Mitchell Library.—In the month of April (24th) work was started in connection with the building of the "Mitchell Library," on the site of the wattle-tree plantation, which contained 120 fairly well-grown young Acacia trees of seventy-eight distinct species.

It is in the Domain, along the Macquarie-street frontage.

Buildings.—A neat building, consisting of a large brick and tile-work shed, 28 feet by 20 feet, to be used for storing blue-metal screenings, and preparing asphalt, &c.; a workmen's kitchen and dining-room in one, 20 feet by 16 feet, furnished with a large table, forms, lockers for men's clothing, boots, &c., and a washing-up sink with water laid on to it, was erected during the year. The cost was under £350. This building is a great convenience.

Refreshment Kiosk.—This useful building has been thoroughly cleaned and painted both inside and outside.

Depasturing Stock.—The right to depasture ten cows and eight quiet horses in the Domain for the year 1907 was sold by auction to last year's purchaser at the upset price of £70.

Offences.—The habit of stone-throwing, mostly by boys, has become rather prevalent, and visitors are endangered and annoyed by this amusement. Trees and plants are often injured.

Five prosecutions were undertaken and fines inflicted, and this, together with cautions administered to younger children, has been the means of greatly lessening the nuisance.

For flower and plant stealing there was only one prosecution, although a few more would be beneficial.

Dawes Point Reserve.—On the 8th September, the following trees were replanted:—

- 1 *Ficus macrophylla.*
- 1 „ *rubiginosa.*
- 1 „ *lucida.*
- 1 „ *Henneana.*
- 1 *Pinus insignis.*
- 1 „ *pinaster.*
- 1 „ *pinea.*
- 3 *Platanus orientalis.*
- 3 *Araucaria excelsa.*

Provision has been made for a man to visit and look after these trees two days a month. The little Reserve deserves some kindlier consideration. A little toolshed and a water supply are necessities.

Central Railway Station.—The western oval plot facing Pitt and George streets on the west side of the station buildings, measuring about 220 feet by 90 feet, enclosed by a dwarf stone wall with ornamental pillars and chainwork, was prepared, laid out, and planted chiefly to commemorate the opening of the Central Railway Station, on 4th August.

The flower beds were, therefore, arranged to synchronise with that important event, and took the form of large letters and figures on grassy lawn indicating—"N.S.W.R." and "1906."

The beds were filled in with herbaceous, bedding, small flowering and ornamental-leaved plants, procured from various outside nurseries.

Palms and Roses occupied trefoil beds on the lawn, and ornamental-leaved exotic and flowering shrubs from the Botanic Gardens filled the four corner plantations.

Every possible attention was bestowed on the formation and planting of this unique garden to make it a success, and it has amply repaid the trouble.

Of the 56 Plane trees planted in 1904 in the streets around the Central Railway Station, fifty-two or fifty-three are in very good health, and only require regular and skilful attention to make them into very handsome shade trees.

GARDEN PALACE GROUNDS.

(MR. JULIUS CAMFIELD, Overseer.)

As specially affecting gardens, the two features which have been characteristic of the year were the contracted rainfall and the comparatively low average temperature. The former recorded a shortage of nearly 20 inches, whilst during the whole of the year scarcely a single hot day was experienced—that is, not what an Australian, even if he had never resided outside Sydney, would term an exceptionally hot day. Perhaps one day in February, about the 23rd, would be comparatively the hottest, the temperature of which was given by the Observatory authorities as 97·3 degrees, although in some parts of the grounds, owing doubtless to the difference of altitude, and the presence of so many trees, the temperature appears to be always somewhat higher than at the Observatory. During the month of February the grounds become very dry indeed, and as a consequence many of the border plants, more particularly annuals, felt the effects of the scarcity of rain; but both January and February were months characterised by most beautiful weather. January especially was ideal for the time of year, and was taken advantage of by an immense number of visitors to the grounds.

In keeping with the average low temperature for the year, there were a few rather sharp frosts during the winter. On the 19th July an iron vessel on the grass near the Overseer's house formed ice to the thickness of $\frac{3}{16}$ inch, which is unusual for Sydney.

Some seasons are specially noted for the prevalence of hot westerly winds, but we only had a few towards the end of October.

Of course it goes without saying that continued high temperatures, accompanied by a low average rainfall (especially in relation to shallow soils, largely composed of silicious constituents) are not conducive to satisfactory gardening, while a scanty rainfall, accompanied by comparatively low temperatures, other things being equal, are much more favourable. The latter were the prevalent conditions of the past year; the consequence was, that the late summer and also the autumn months at the commencement, and the spring and the early summer months at the end of the year were fairly satisfactory as far as the general appearance of the grounds was concerned. Neither weeds in the borders nor grass on the lawns grew to any great extent, and at the same time it was possible, owing to the favourable climatic conditions, to keep up a regular supply of flowers in the borders, but this latter was only accomplished by the daily use of water. At the same time, it must be admitted that owing to the dryness previously referred to, and which has been a feature of the Sydney climate for the last two or three years, some of the cultivated varieties have suffered, and this has been notably the case in regard to roses. Excepting in a few spots, where special provision as to soil, &c., has been made, rose-culture cannot be regarded as a success in these grounds; so that it is not perhaps to be wondered at that those visitors who take a special interest in rose-culture wonder how it is that we do not make a better display.

A further result of the dryness of the past two or three seasons is now to be witnessed in the large bare—because grassless—patches in the various embankments of the grounds. At present we are not in a position to use large quantities of water on them.

On March 27th we had an unusual experience in the form of a tornado. We received it after it had to some extent spent the worst of its fury. It came from the direction of North Sydney, where it did considerable damage. Just previous to its arrival in the grounds everything was very calm and quiet, which was all the more noticeable afterwards because of the tremendous noise made by it in its approach and during the few seconds it lasted.

Although the real damage done in the grounds was not great, a good many branches were torn from trees situated in its track, while two stout limbs of an African species of *Combretum* received severe twisting.

During September the grounds were subjected to some amount of trouble through the depredations of a pest variously known as "Cutworm" and "Bugong Moth," the larvæ of *Agrostis spina*. The popular term "Cutworm" arises from its method of working while in the larva stage. It gnaws or cuts through the plant while the latter is in a young state, and this it apparently does only during the night-time, while through the day it seems to lie dormant. Its destroying propensity was largely evinced, especially among the Anemones, Ranunculus, Dianthus, and Pyrethrum. It obtained its name "Bugong Moth" from the fact of the perfect insect being found in countless numbers on some of the highest peaks (Bugongs) of the Australian Alps. Mr. Froggatt, the Government Entomologist, advised the use of Paris Green, mixed with moistened bran and sweetened with sugar, as a remedy, which to some extent was found to be successful. This pest is more or less in evidence every year, but it was never remembered to have been so destructive as during the past spring.

Top-dressing lawns.—Rather extensive work has been done in this respect. For several years past the surface of the lawn in the north-east portion of the grounds adjoining the Botanic Gardens, has been very uneven, owing to the gradual and irregular filling which on previous occasions had been employed in forming the lawn. About 1,000 loads of soil were removed from that portion of the Outer Domain used for the building of the Mitchell Library, and this lawn was top-dressed for a depth of 3 to 12 inches. The improvement is considerable.

Simultaneously another lawn, viz., that on the northern side of the principal steps and adjoining the grass bank overlooking the Harbour, was also taken in hand, and about 150 loads were used to bring it up to its proper level. On this lawn the golden obelisk was erected during the holding of the International Exhibition in these grounds in 1879–80.

Opuntia Plantation.—This has been further enlarged by the forming and trenching of two large new beds in close proximity to those already established. With the additional planting area thus rendered available, the various species have been distributed in sections, the object in the rearrangement being, as much as is at present possible, to keep together in the several sections those whose natural affinities bring them more or less into relation with the members constituting the particular group in a given bed, so as to facilitate the comparative examination of the several species. Some of the smaller habited forms have been transferred to pots and plunged in the beds in order as much as possible to preserve them from accident.

Interesting results have been already obtained, although they are not yet ready for publication.

Asphalting

Asphalting and tar-painting walks.—The path running in a southerly direction from the bottom of the lesser stone steps near to the Outer Domain, and then bending round again towards the north to past the mowing machine house, was asphalted. This path originally ran from the steps just mentioned to the cart gates which used to stand in the south-east corner of the grounds, and then returned thence in a northerly direction along the whole eastern boundary of the grounds, passing the machine house in its course. But in 1900 (see the Report for that year, p. 25), the gates were removed, so that some amount of alteration was effected, which consisted principally of bending round the first mentioned path in order to join that along the eastern boundary. For years past these two paths have been neglected for want of funds. As a matter of fact, since they were first formed—some twenty-eight years ago—they had never been properly completed and so had got rather rough.

About the same time another path was also asphalted, viz., that running from the Botanic Gardens and proceeding in a westerly direction through the *Opuntia* section; also the path on the north side of the Palm section, and also that on its west side as far as the machine shed, were tar-painted and sanded.

Cleaning water-mains.—It has been remarked in previous reports that in the higher portion of the grounds, more particularly the south-west corner, the pressure of water was defective; so that for some years past, especially in the midsummer season, it has scarcely been possible to command sufficient water to meet the requirements of this particular section, and this scarcity has been more and more accentuated as years rolled on. During the year it was decided to clean the main. The principal service consists of a 4-inch main which runs completely round the upper part of the grounds, entering them near the Governor Bourke statue, following generally the course of the principal roadway and connecting again with the large supply main in the Fig-tree road near to the cart gate. From the 4-inch main there are 3-inch branches at intervals, which all terminate with hydrants, which in the early years of the grounds were solely used for standpipes to which the hose was attached for watering purposes. Of late years, however, the hydrants have been gradually going out of use, as a system of taps, supplied by 1-inch and 1½-inch service pipes from the mains, is found to be more convenient and much more economical, both as regards time and india-rubber hose.

While these alterations were proceeding, it was resolved, on account of the small size, antiquated pattern, and corroded condition of the old meter, that a new 4-inch meter, provided with a smaller, viz., 1-inch by-way meter attached, should be supplied, this latter to record the amount of water used when only a comparatively small quantity was being drawn from the mains. The result of this latter renewal, together with the cleaning of the mains, although not quite so satisfactory as was anticipated, yet has conduced to a somewhat better supply, which it is expected will be materially augmented when the full resources of the new Cataract Dam shall have become available.

Indigenous Plant Border.—Most of the plants are now provided with iron, oval-shaped labels. Most of the specimens are making fairly good growth, and the position appears to suit the requirements of the majority of the species. A good percentage of them produced flowers in their season, among which were particularly *Cheir-anthera linearis*, A. Cunn., with its terminal corymbs of beautiful dark-blue flowers, the petals of which are nearly an inch in length, and preserve their freshness for a long time, and *Olearia ramosissima*, Benth., the *Aster cyanodiscus*, F.v.M. This latter has violet and blue flowers, which although small are very pleasing on the plant. It comes from the northern interior and table-land, and is seldom seen in flower as a cultivated plant. *C. linearis* also comes from a similar habitat, and although better known perhaps than the *Olearia*, is by no means common.

Miscellaneous work.—The borders fronting the shrubberies where the "Boxers" statues are placed, together with those belonging to the two opposite corner shrubberies further eastward along the same main central walk, were "bastard-trenched." These particular shrubbery-beds—like many others in the grounds—are composed of very poor soil, if indeed it can be called soil at all, being made to a great extent of building debris from the Exhibition building, the two latter beds being situated almost exactly upon the site of the eastern tower of that structure.

The "bastard-trenching" consists of throwing out the soil about a spade deep from a trench about 2 feet wide, and then turning over the bottom of the trench as deep as the tool will reach, the object being to give the ground as deep a stirring as possible, but still keeping the surface soil uppermost, at the same time severing any roots which may be met with, removing also anything in the shape of bricks and stone, pieces of timber, iron, &c., which are not infrequently in evidence.

A part of the Palm section was very heavily manured, as it was thought, from the general appearance of the specimens, that they needed it. This was very beneficial, and it is proposed to similarly treat the remainder during the current season. In this group of Palms there is a very fine specimen of *Washingtonia filifera*, Wendl., known also under the synonyms of *Pritchardia filifera*, Linden, and *Brahea filamentosa*, Hort. It has occupied its present position some seventeen years, and gives a fair idea of what may be expected of the species in a comparatively short period. From the ground surface to the bottom leaves it is about 20 feet high, and at the base measures 12 feet 9 inches, and is surmounted with a splendid head of large, healthy-looking foliage. The species is indigenous to South California, U.S.A., where it is stated to attain an altitude of 50 feet. Another very imposing specimen is that of *Phoenix canariensis*, Hort., from the Canary Islands. This was planted some few years later than the preceding, and has also attained very large proportions. The stem is about 12 feet to the lowest leaves, which are 15 feet long or more, the tips of them forming a circle of about 100 feet in circumference, while the stem is over 12 feet at the base. There is also a very fine specimen of this latter genus, viz., *P. dactylifera*, Linn.—popularly known as the "Common Date Palm"—a little way to the north of the Palm-bed, and standing by the side of the main walk. It is a plant of a single stem and perfectly upright, and is a fine example of this particular single-stemmed variety. It is about 18 feet high to the bottom leaves, and was planted about the time of the Exhibition (1879–80).

A large new flower bed was formed at the bottom of the principal stone steps on the main central walk, at the corner of the lawn on the south side of the walk.

The wicket and pickets at the principal entrance were painted during the year.

CENTENNIAL PARK.

(MR. W. FORSYTH, Overseer.)

Weather.—The weather for 1906 was as generally unfavourable for plant life in the Centennial Park as was that of 1905. The rainfall registered in the Park (37·24 inches) was even less than the rainfall of the preceding year.

Tree-planting.—During the spring season this work was continued. The plants of Broad-leaved Messmate (*Eucalyptus obliqua*), planted on each side of a water-channel, near to the entrance gate in the vicinity of the "Red Hill" Quarry, having died (most of them) either from disease or drought, twenty-two plants of Cootamundra Wattle (*Acacia Baileyana*, F.v.M.) were planted in their stead. A little further north an avenue of twenty-one plants of Evergreen Oak (*Quercus virens*) was formed. On the eastern side of the Park, in an angle formed by the junction of one of the flat roads with the main drive, a group of *Banksia serrata*, L. f., was made. Adjoining a portion of one of the flat roads—that lying between the statues of President Lincoln and Charles Dickens, two groups of She-Oaks have been planted, viz., the Belah (*Casuarina lepidophloia*, F.v.M.) on the east side, and the Thready-barked Oak (*C. inophloia*, F.v.M.) on the west side.

On a piece of fairly level ground, near to the overflow from the Busby's Bore dam, a group of the South African *Harpephyllum caffrum*, Bernh., was planted.

The two rows of Swamp Mahogany (*Eucalyptus robusta*, Sm.), which were planted parallel to the main embankment running across the Park, have been a complete failure, and were last spring replaced by plants of *Melaleuca leucadendron*, L.

A number of other species of trees were planted in various parts of the Park to replace either the failures, or plants stolen or destroyed.

Another new plantation was formed, alongside the tram-line, on the north side of the Park, this time adjoining the Queen-street entrance to the Park. In this plantation six plants of *Quercus virens*, six of *Cupressus Goveniana*, about 48 yards of privet hedge, and about 100 plants of shrubs and soft-wooded plants were planted.

The following is a list of the trees planted:—

Live Oak (<i>Quercus virens</i>)	...	...	...	...	...	...	...	...	27
Native Honeysuckle (<i>Banksia serrata</i>)	...	...	...	...	...	...	...	...	30
Belah (<i>Casuarina lepidophloia</i> , F.v.M.)	...	...	...	...	...	...	...	...	43
Thready-barked Oak (<i>Casuarina inophloia</i> , F.v.M.)	...	...	...	...	...	...	...	...	27
To replace failures:—									
Large-leaved Tea-tree (<i>Melaleuca leucadendron</i>)	...	...	...	...	...	...	...	...	59
Port Jackson Fig (<i>Ficus rubiginosa</i> , Desf.)	...	...	...	...	...	...	...	...	15
<i>Pinus insignis</i>	...	...	...	...	...	...	...	...	9
<i>Eucalyptus megacarpa</i> (W.A.)	...	...	...	...	...	...	...	...	7
Warty-coned Cypress Pine (<i>Callitris verrucosa</i>)	...	...	...	...	...	...	...	...	1
Cootamundra Wattle (<i>Acacia Baileyana</i> , F.v.M.)	...	...	...	...	...	...	...	...	22
<i>Cupressus Goveniana</i>	...	...	...	...	...	...	...	...	6
Total	...	...	...	...	...	...	...	...	246

Most of the trees planted last year have thriven as well as one could expect, the exception being Aleppo Pine (*Pinus halepensis*). I am afraid the Aleppo Pine is not going to be a success in the Centennial Park. None of the plants are now looking healthy, and many of them are badly infested with a white scale. It is a native of limestone country with a lower rainfall than prevails in Sydney.

Native Flower Plantation.—During the year fifty-one species were added to the collection, which now comprises 182 genera and 454 species.

The work of altering the verges of the beds from Couch Grass (*Cynodon dactylon*) to Buffalo Grass (*Stenotaphrum americanum*) was continued and completed during the year.

It is surprising how well the plants look in this ground, when one considers that they are growing in almost pure sand, and that they receive no artificial watering, although the natural habitat of many of the plants is very different to that which obtains in the Park—*e.g.*, the Blue Mountains.

Roads and Paths.—*Abandonment of the use of Residual Oil.*—About 5,000 gallons of tar have been used for floating and repairing roads during the year, about 75,000 square yards of the surface having been treated.

It was stated in my last report that we were unable to obtain oil for the roads when it was wanted to conserve the work that had already been done; this state of affairs has led to the abandonment of the use of oil for the roads, and during the past year the portion of the main drive lying between the statue of "Gladstone" and the Randwick gates, previously oiled, was treated with tar, about 2,000 gallons of tar being used with 20 tons of No. 2 screenings and 10 tons of No. 1 screenings. Another portion of the main drive previously oiled, viz., from the statue of "Charity" towards the statue of "Lincoln," for a distance of 10 chains was tarred, 1,000 gallons of tar being used for the purpose.

The Ride.—It has not been found necessary to close the ride during the past year. We make use, as much as possible, of the edgings from the main drive, to fill up the ruts which form in the ride, and, in addition, 130 loads of rotted sweepings have been applied as top-dressing.

Thinning-out of Pines.—The young pines (*Pinus maritima*, or "Cluster Pine") springing up on that portion of the Park lying between the main drive and the Randwick and Coogee tram-line, having in some parts become very dense and liable to destruction if a fire got amongst them, were during the year thinned out, the lower branches and the undergrowth and grass cleared away. In this way the risk of fire was minimised, and necessary space was given the trees to grow.

Plants

Plants Stolen.—Thieves have not been idle here during the past year, although their attacks on the flowering plantations were more or less of a fitful character. The worst raids perhaps were made when the Chrysanthemums had been planted for some little time, and the Dahlias just newly planted. Within the space of two weeks two plantations were almost completely cleared of these plants.

The following is a list of plants either stolen or destroyed:—

<i>Quercus virens</i>	5
<i>Pinus insignis</i>	2
„ <i>halepensis</i>	1
<i>Callitris Parlatores</i>	3
„ <i>verrucosa</i>	1
<i>Casuarina lepidophloia</i>	1
Chrysanthemums	43
Cactus-flowered Dahlias	8
Gladioli	2
<i>Acanthus lusitanica</i>	1
<i>Cantua pyrifolia</i>	1
Bouvardia	1

Impoundings, Prosecutions, &c.—During the year stock to the number of 505 (366 cattle and 139 horses) were impounded by the Rangers.

The number of prosecutions instituted under the Park By-laws was eight. Six of these cases were for the straying of stock, one for driving a motor-car at a rate of speed dangerous to the public, and one for riding a bicycle in a similar manner.

The total amount of fines and costs amounted to £20 9s. In eight instances children, having been caught in the act of stealing flowers and plants, were taken home to their parents as they were too young to prosecute. Their ages ranged from 6 to 10 years.

Music.—The band of the Royal Australian Artillery usually plays every alternate Friday afternoon in the Park, and the performances are enjoyed by large gatherings of people.

Painting of Reservoir.—The iron railings, gates, and rotunda of the reservoir have been painted during the past year by the employees of the Water Supply and Sewerage Board.

STATE NURSERY, CAMPBELLTOWN.

(MR. J. McEWEN, Superintendent.)

The Weather.—The year has again been marked by the continued drought of the last few years. The total rainfall was only 15 inches; this is a record, as the normal rainfall is over 30 inches. Although the growth has, of course, been retarded, no loss of plants has resulted, owing probably to the low average temperature of the summer months.

Distribution of Plants.—During the year the plants, bulbs, and tubers distributed numbered 73,163. Attached herewith is a statement showing the number of consignments and plants sent out:—

Institutions supplied.	Number of Consignments.	Trees.	Shrubs.	Miscellaneous.
Public Schools	334	7,322	3,148	7,946
Railway Stations	90	1,128	1,041	1,694
Gaols and Court-houses	20	195	299	210
Asylums	5	208	171	4,350
Botanic Gardens	8	2,884	1,978	25,648
Charitable Institutions	5	423	283	450
Churches of England	25	939	307	506
„ Roman Catholic	18	560	295	1,528
„ Methodist	8	198	6	60
„ Presbyterian	28	488	203	.....
„ Congregational	2	14	34	.....
Convents	28	640	685	1,763
Colleges	4	299	130	2,526
Cemeteries	6	179	84	200
Miscellaneous—including Caves, Viticultural Station, Post Offices, Parks, Municipalities, Hill View, Pilot Station, &c.	21	1,610	341	190
Total	602	17,087	9,005	47,071

(See also page 9 of this Report for statements of the plants despatched direct from the Botanic Gardens.)

Buildings, Repairs, &c.—The residence, office, and propagating-house have been painted, renovated, and repaired throughout by the Government Architect's staff, and all buildings and fences are in good repair.

Arboretum.—All trees in this plantation are making good growth and are now showing their adaptability to the climate and soil of this district.

Seeds, &c., received.—Seeds, cuttings, and plants have been received from numerous persons, and from the Botanic Gardens, Sydney.

Changes in the Staff.—J. C. Williams, of the Department of the Board of Health, was appointed temporary junior clerk during the annual distribution of plants.

F. B. Moss, gardener, has been on sick leave since 20th August, and Cosmos Meredith has been employed in his stead.

GOVERNMENT HOUSE GROUNDS (OR INNER DOMAIN).

(MR. J. HELPS, Head Gardener.)

The Sydney residence of His Excellency the Governor-General.

"CRANBROOK," ROSE BAY.

(MR. E. N. WARD, Head Gardener.)

The Sydney residence of His Excellency the State Governor.

ADMIRALTY HOUSE, NORTH SYDNEY.

(MR. C. WESTON, Gardener-in-Charge.)

The Sydney residence of His Excellency the Naval Commander-in-Chief.

"HILL VIEW," SUTTON FOREST.

(MR. R. A. PROUDFOOT, Gardener-in-Charge.)

The country residence of His Excellency the State Governor.

The year has not, on the whole, been specially favourable to gardening operations; still the various grounds have been kept in as creditable a condition as the small votes will permit.

J. H. MAIDEN.