NOTES FROM THE ROYAL BOTANIC GARDEN EDINBURGH

VOL. XV.

Including Numbers LXXI-LXXV.

1925-1927

With Plates CXCIX-CCXXIII and Twenty-one Figures in the Text.



EDINBURGH:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

SOLD AT THE GARDEN,
And to be purchased directly from H.M. STATIONERY OFFICE at the following addresses
120 GEORGE STREET, EDINBURGH; ADASTRAL HOUSE, KINGSWAY, LONDON, W.C.2;
YORK STREET, MANCHESTER; 1 ST. ANDREW'S CRESCENT, CARDIFF;
15 DONEGALL SQUARE WEST, BELFAST;
or through any Bookseller.

[*Crown Copyright Reserved.*]

Dates of the several Numbers of this Volume.

Number LXXI, pp. 1–68 for June 1925.
Number LXXII, pp. 69–132 for February 1926.
Number LXXIII, pp. 133–198 for August 1926.
Number LXXIV, pp. 199–246 for March 1927.
Number LXXV, pp. 247–320 for October 1927.

List of Contents to Volume XV, 1925-1927.

The Royal Botanic Garden - - - - - - - - - i
List of Staff at July 1927 - - - - - - - - - ii
Rules and Regulations - - - - - - - - - iii
Historic Notice - - - - - - - - - - v
Regius Keepers - - - - - - - - - - ix
Principal Gardeners from 1756 - - - - - - - x
Features of the Garden. With Key-Plan - - - - xi
Teaching in the Garden - - - - - - - - xiii
Enumeration of Visitors, 1889–1926 - - - - - xviii

A Revision of the Genus Nomocharis. By W. Edgar Evans, B.Sc., F.R.S.E. (with Plates CXCIX-CCXII)- - - 1

The Genus Coluria, R. Br. By W. Edgar Evans, B.Sc., F.R.S.E. (with Plates CCXIII-CCXIV) - - - - 47

Ascidia on the Leaf of Semecarpus Anacardium, Linn. By Mary M. B. Knagg, B.Sc. (with five figures in the text) - 55

The Heterophylly of Hemiphragma heterophyllum, Wall. By Mary M. B. Knagg, B.Sc. (with four figures in the text) - 61

New Species of Primula from Tibet. By William Wright Smith and F. Kingdon Ward - - - - - - - - 69

A New Omphalogramma from Yunnan. By William Wright Smith - - - - - - - - - - - 97

Notes on Chinese Rhododendrons with Descriptions of New Species. By Harry F. Tagg, F.L.S. - - - - - 99

The Genus Reevesia, Lindl. By John Anthony, M.C., M.A., B.Sc. (with two figures in the text) - - - - 121

An undescribed Androsace from Yunnan. By W. Edgar Evans 130

Two New Leguminosae. By Dr. A. K. Schindler - - - 131

On the Secretory Organs of the Dioscoreaceae. By Matthew Young Orr (with Plate CCXV and five figures in the text) 133

Scrofulariacées du Yunnan Occidental récoltées par M. J. Rock. Déterminées par Gustave Bonati - - - - - 147

A key to the genus Codonopsis, Wall., with an account of two undescribed species. By John Anthony, M.C., M.A., B.Sc. (with Plates CCXVI-CCXVII) - - - - 173

An Undescribed Nomocharis from Upper Burma, with Notes on some Recent Gatherings of Known Species. By W. Edgar Evans, B.Sc., F.R.S.E. (with Plate CCXVIII) - - 191

Some Interesting and Undescribed Vacciniaceae from Burma and Western China. By W. Edgar Evans, B.Sc., F.R.S.E. (with Plates CCXIX-CCXXI and one figure in the text) - - - - - - - - - - - 199

A Revision of the Genus Diapensia, with Special Reference to the Sino-himalayan Species. By W. Edgar Evans, B.Sc., F.R.S.E. (with Plate CCXXII and three figures in the text) - - - - - - - - - - - - 209

A Note on the Genus Reevesia, Lindl. in Java. By John Anthony, M.C., M.A., B.Sc. - - - - - - - 237

A Description of some Asiatic Phanerogams. By John Anthony, M.C., M.A., B.Sc. (with one figure in the text) - - 239

Some new Asiatic Primulaceae. By William Wright Smith and George Forrest (with Plate CCXXIII) - - - - 247

A Revision of the Chinese Species of Androsace, with Remarks on other Asiatic Species. By Dr. H. Handel-Mazzetti - 259

Additional Species of Primula from the Burma-Tibet Frontier. By William Wright Smith and F. Kingdon Ward - - 299

New Species and Varieties of Asiatic Rhododendrons. By Harry F. Tagg and George Forrest - - - - 305

THE ROYAL BOTANIC GARDEN, EDINBURGH.

THE Royal Botanic Garden, Edinburgh, is one of two Gardens maintained by the State in the United Kingdom, the other being the Royal Gardens at Kew in England. It occupies an unequally-sided quadrilateral area of 57.648 acres (bounded upon all sides by public roads and dwelling-houses) on the north side of Edinburgh—about a mile from the shore of the Firth of Forth. Its highest point, at Inverleith House—the official residence of the Regius Keeper of the Garden—towards the north-west, is 109 feet above sea-level, and thence the ground falls away on all sides. The lowest point—a depression 48 feet above sea level, with an east and west trend through the middle of the Garden—is the site of an old bog, and the ground rises again to the south of the depression. The surface soil is generally alluvial sand resting on clay at considerable depth. In the lower part of the area the clay comes to the surface.

There are two entrances to the grounds—one upon the east side from Inverleith Row into the **Garden**, the other upon the west side from Arboretum Road into the **Arboretum**. The entrance to the **Laboratories, Lecture Halls, Library**, and to the **Office** for Garden business is from Inverleith Row.

The **Garden** is open daily from **9 a.m.** on **Week-days** and from **11 a.m.** on **Sundays** until sunset.

The **Plant-Houses** are open from **1 p.m.** until **5 p.m.**, or until sunset if this be earlier.

The **Museum** is open on **Week-days** from **9 a.m.** until **5 p.m.** and on **Sundays** from **1 p.m.** until **5 p.m.**

The **Herbarium** is open on **Week-days** from **9 a.m.** until **5 p.m.**, excepting **Saturday**, when it is open until **1 p.m.**

The **Library** is open on **Week-days** from **9 a.m.** until **5 p.m.**, excepting **Saturday**, when it is open until **1 p.m.**

The **Office** for transaction of business with the Public and with Tradesmen is open on **Week-days** from **9 a.m.** until **5 p.m.**, excepting **Saturday**, when it is open until **1 p.m.**

[Notes, R.B.G., Edin., July, 1927.]

Staff of the Royal Botanic Garden, Edinburgh, at July, 1927.

ESTABLISHMENT.

Regius Keeper	William Wright Smith, M.A., F.L.S., F.R.S.E.
Assistant Keeper	Vacant
Assistant in Herbarium	William Edgar Evans, B.Sc., F.R.S.E.
Assistant in Laboratory	Matthew Young Orr
Assistant in Library	James Todd Johnstone, M.A., B.Sc.
Assistant in Museum	Harry Frank Tagg, F.L.S.
Assistant in Studio	Robert Moyes Adam
Curator	Robert Lewis Harrow, F.R.H.S.
Assistant Curator	Laurence Baxter Stewart
Clerical Assistant	Jean Brockie
Do.	David Ramsay Oliver
Typist	Edna Louise Linsell
Medical Officer	James Walter M'Donald, M.B.

Foreman of Arboretum	Charles Lamont
Foreman of Glass Department	James John Campbell
Foreman of Herbaceous Department	Alexander M'Cutcheon

RULES for the Royal Botanic Garden and Arboretum in connection with the Regulations prescribed by "The Parks Regulation Act, 1872."

---

1. No unauthorised Person may ride or drive in this Garden or in the Arboretum, and no Wheelbarrow, Truck, Bath-chair, Perambulator, Cycle, or other Vehicle or Machine, is allowed to enter, except with the written permission of the Keeper. Children under ten years of age are not admitted unless accompanied by a Parent or suitable Guardian.

2. No Horses, Cattle, Sheep or Pigs are allowed to enter.

3. No Dogs are admitted.

4. No Bags, Baskets, or Parcels, no Flowers, and no implements for games may be brought in; Artists and Photographers may not bring in their Apparatus without written permission from the Keeper.

NOTE.—*The foregoing Rules shall not apply to persons going to or leaving Inverleith House by the road leading from the Arboretum Road Gate to the House.*

5. Visitors are to enter and leave the Plant-Houses by the Doors according to the Notices affixed thereon.

6. Smoking is not allowed in the Plant-Houses.

7. No Person shall touch the Plants or Flowers.

8. Picnics and luncheon parties are not allowed.

9. No unauthorised Person shall Drill or Practice Military Evolutions or use Arms or play any Game or Music, or practice Gymnastics, or sell or let any Commodity.

10. No unauthorised Public Address may be delivered in the Garden or Arboretum. No Performance or Representation either spoken or in dumb show shall be given in any part of the Garden or Arboretum, unless by permission of the Commissioners of His Majesty's Works and Public Buildings. No Person shall use any obscene, indecent, or blasphemous words, expressions, or

gestures, or do any act calculated to provoke a breach of the Peace, in the course of, or in connexion with, any speech, address, performance, recitation, or representation. No money shall be solicited or collected in connexion with any performance recitation, or representation, except by permission of the Commissioners of His Majesty's Works and Public Buildings.

11. Large parties must be broken up to prevent crowding.

12. Climbing the Trees, Railings or Fences is forbidden.

13. Birds'-nesting, and taking, destroying, or injuring Birds or Animals are forbidden.

14. The distribution of Handbills, Advertisements, and other Papers by the Public is forbidden.

Dated the 28th Day of April, 1904.

Sealed with the Common Seal of the Commissioners of His Majesty's Works and Public Buildings.

SCHOMBERG K. M'DONNELL,
Secretary.



Historic Notice.

In the year 1670 a small portion of ground, known as St. Ann's Yards, lying to the south of Holyrood House, and usually let to market gardeners by the Hereditary Keeper of Holyrood House, was occupied by two eminent Edinburgh physicians, **Andrew Balfour** and **Robert Sibbald** for the making of a Physic Garden, and **James Sutherland** was appointed to the "Care of the Garden." This was the foundation of the Royal Botanic Garden of Edinburgh, which is therefore, after that of Oxford (founded in 1632), the oldest in Great Britain. The Garden was stocked with plants from the private Garden of Dr. Andrew Balfour, in which for some years he had been accumulating medicinal plants, and also in great measure from that at Livingston in West Lothian, the laird of which, Patrick Murray, was much interested in the growing of useful plants. Shortly thereafter, but at what precise date has not yet been ascertained, Sutherland became custodian of the Royal Garden, which lay on the north side of the Palace, and it became a Physic Garden for instruction, whilst the original plot in St. Ann's Yards was, apparently, given up.

In 1676 the same physicians acquired from the Town Council of Edinburgh a lease of the Garden of Trinity Hospital and adjacent ground for the purpose of a Physic Garden in addition to the Garden already existing at Holyrood, and they appointed the same James Sutherland (1639?–1719) to be "Intendant" of this Garden. The site of this Garden, which for convenience of reference may be called the Town's Botanic Garden, was the ground lying between the base of that portion of the Calton Hill upon which the prison is built and the North Bridge, and it is now occupied by a portion of the Waverley Station of the London and North Eastern Railway. The name Physic Garden attached to a street in the vicinity is a reminiscence of the existence of the Garden at this spot.

About 1702 another Botanic Garden was established in Edinburgh in the ground immediately adjacent to the College Buildings, apparently on the site of the present South College Street. This was the College Garden, and of it James Sutherland became also custodian.

Thus in the early years of the eighteenth century there were in Edinburgh three distinct Botanic or Physic Gardens—one

at Holyrood, the Royal Garden; one around Trinity Hospital, The Town's Garden; and one beside the College, the College Garden—all under the care of James Sutherland.

Sutherland from the first made use of the Royal Garden for giving "instruction in Botany to the Lieges," and received a royal warrant appointing him Botanist to the King in Scotland, and empowering him to "set up a Profession of Botany" in this Garden. When the Town's Garden was created the Town Council appointed him to lecture on Botany as Professor in the Town's College, now the University of Edinburgh. In 1683 he published his "Hortus Medicus Edinburgensis, or a Catalogue of the Plants in the Physical Garden at Edinburgh," from which and from other published notices we learn that between two and three thousand plants were in cultivation. There are no data available from which to determine how these plants were distributed between the several Gardens at the date of publication of Sutherland's catalogue.

In 1706 Sutherland resigned the care of the Town's Garden and the College Garden as well as his Professorship in the University, but, remaining King's Botanist, he retained the care of the Royal Garden at Holyrood. Charles Preston (1660–1711) was appointed his successor by the Town Council, and there were thus established rival Gardens and rival Professors of Botany in Edinburgh. Charles Preston was succeeded in 1712 in his offices by his brother George Preston (1656–1749). Neither of the Prestons had ever the care of the Royal Garden.

Sutherland's appointment as King's Botanist, Keeper of the Royal Garden, and Regius Professor of Botany was held during the pleasure of the Sovereign, and on the death of Queen Anne in 1714 he was not continued in office by George I.

In 1715 **William Arthur** (1680–1716) received a commission as successor to Sutherland, but as he was implicated in an unsuccessful Jacobite plot to seize the Castle, he did not hold the office long.

He was succeeded in 1716 by **Charles Alston** (1685–1760).

In 1724 the College Garden, having fallen into disorder, was turned to other uses; and in 1729, George Preston having retired, the Town Council appointed, as his successor in the charge of the Town's Garden and as Professor of Botany in the University, Charles Alston, who as King's Botanist had already the

charge of the Royal Garden and was Regius Professor of Botany. Through him, after separation for a quarter of a century, the Royal Garden and the Town's Garden were again combined under one Keeper, and the Regius Professorship of Botany and the University Professorship were similarly united. They have so continued to the present time.

In 1763, the Royal Garden and the Town's Garden, proving too small and otherwise unsatisfactory, **John Hope** (1725–1786), who had succeeded Alston in his offices in 1761, proposed a transference of the two to a more congenial site in which they could be combined. At first it was intended to secure ground to the south of George Watson's Hospital—the area upon which much of the present Royal Infirmary is built—but this not being possible, five acres of ground to the north side of Leith Walk, below the site now occupied by Haddington Place, were chosen. As Hope proposed to transfer the collections in the Royal Garden to the new Garden he was able to secure the support of the Treasury to his scheme, and the selected ground was leased in name of the Barons of Exchequer. At the same time the Town Council agreed to contribute £25 annually to the support of the Garden, the sum being the amount of rent expected from the letting of the old Town's Garden. The plants from both Gardens were transferred to the ground at Leith Walk, and from this date there has been only one Botanic Garden in Edinburgh. The site thus secured for the Garden proved, however, only a temporary one.

Daniel Rutherford (1749–1819), who in 1786 succeeded Hope in his offices, cast about him for a spot in which more ground would be available for the extension of the Garden; and eventually in 1815 nine and a half acres of the land lying to the east of Holyrood Palace, and forming the ground of Belleville or Clockmill, was fixed upon as a site. This selection gave rise to controversy, which was prolonged, and Rutherford died before any arrangements for the transference of the Garden had been made.

Robert Graham (1786–1845), his successor, appointed in 1820, preferred the more open site of the Inverleith property which the Garden now occupies, and fourteen acres of the Field or Park of Inverleith, known as Broompark or Quacaplesink,

were purchased by the Barons of Exchequer from Mr. James Rocheid, its owner, in 1820, the lease of the Leith Walk Ground being sold. By 1823 all the plants had been transferred to the new Garden.

In 1858, during the Keepership of **John Hutton Balfour** (1808–1884), who succeeded Graham in 1845, a further addition by purchase from the proprietor of Inverleith, of a narrow belt of two and a half acres was made to the Garden on the west side; and in 1865 the Caledonian Horticultural Society having resigned to the Crown its lease of the ten acres of adjoining ground which it had occupied since 1824 as an experimental Garden, this ground was also made part of the Botanic Garden. Finally the present area of the Garden was completed in 1876, when the Town Council purchased from the Fettes Trustees twenty-seven and three-quarter acres of Inverleith property on the west side of the Garden and transferred it to the Crown for the purpose of making an Arboretum in connection with the Garden; the Crown at the same time purchased Inverleith House and two and a half acres of additional ground.

In 1879, **Alexander Dickson** (1836–1887) became Queen's Botanist, Regius Keeper and Professor, and held these appointments until his death in 1887. During his term of office the Arboretum was opened to the public.

He was succeeded by **Sir Isaac Bayley Balfour** (1853–1922), during whose term of office the Botanic Garden reached its present extended development as a centre of botanical and horticultural research and instruction. In the necessary re-arrangements the outstanding features have been the removal of the dividing wall between the Arboretum and the Botanic Garden, the laying out of the Arboretum according to the various genera of trees and shrubs, the formation of a noteworthy rock garden and the extension of a herbaceous border along the North side of the Garden. The plant-houses have in many cases been re-built and largely added to. Complete reorganisation of the laboratories and Garden offices with additional accommodation and equipment has permitted of the establishment of a botanical school which has attracted and continues to attract many research workers and students of Botany and Horticulture.

REGIUS KEEPERS (R.K.)
from the date of
FOUNDATION OF THE GARDEN.

James Sutherland . . .	Born 1639? R.K. 12th January, 1699.* Not confirmed, 1714. Died 24th June, 1719.
William Arthur . . .	Born September, 1680. R.K. 10th May, 1715. Died 1716.
Charles Alston . . .	Born 24th October, 1685. R.K. 30th June, 1716. Died 22nd November, 1760.
John Hope.	Born 10th May, 1725. R.K. 13th April, 1761. Died 10th November, 1786.
Daniel Rutherford . . .	Born 3rd November, 1749. R.K. 20th December, 1786. Died 15th December, 1819.
Robert Graham . . .	Born 7th December, 1786. R.K. 31st January, 1820. Died 7th August, 1845.
John Hutton Balfour . .	Born 15th September, 1808. R.K. 8th November, 1845. Retired, 1880. Died 11th February, 1884.
Alexander Dickson . . .	Born 21st February, 1836. R.K. 28th April, 1880. Died 30th December, 1887.
Isaac Bayley Balfour . .	Born 31st March, 1853. R.K. 5th April, 1888. Retired, 5th April, 1922. Died 30th November, 1922.
William Wright Smith . .	Born 2nd February, 1875. R.K. 21st April, 1922.

* This is the date of a Royal Warrant from William III., and no earlier one has been found.

Principal Gardeners (P.G.) from the Year 1756.

(The names of those preceding Williamson are not yet known.)

John Williamson . . .	P.G. 1756? Died September, 1780.
Malcolm M'Coig . . .	P.G. 1st January, 1782? Died 25th February, 1789.
Robert Menzies . . .	P.G. 1st October, 1789. Died 22nd January, 1800.
John Mackay	Born 25th December, 1772. P.G. February, 1800. Died 14th April, 1802.
George Don	Born October, 1764? P.G. 1st October, 1802. Resigned 31st December, 1806. Died 15th January, 1814.
Thomas Sommerville . .	Born 1783? P.G. 1807? Died 17th March, 1810.
William M'Nab	Born 12th August, 1780. P.G. April, 1810. Died 1st December, 1848.
James M'Nab	Born 25th April, 1810. P.G. 1st January, 1849. Died 19th November, 1878.
John Sadler	Born 3rd February, 1837. P.G. 13th January, 1879. Died 9th December, 1882.
Robert Lindsay . . .	Born 7th May, 1846. P.G. 3rd March, 1883. Retired 31st March, 1896. Died 24th September, 1913.
Adam Dewar Richardson .	Born 12th September, 1857. P.G. 1st April, 1896. Resigned 31st May, 1902.
Robert Lewis Harrow . .	Born 26th March, 1867. P.G. 1st June, 1902.

Features of the Garden.

THE method through which the Garden was built up by successive additions resulted in an absence of combination between its several parts, in great measure a consequence of want of adequate funds to make the necessary alterations in the grounds. During the past thirty-eight years, in which the Garden has been wholly under the administration of the Commissioners of H.M. Works, the bringing about of this combination has been in progress. The work is not yet completed, and the Plan of the Garden which is attached to this sketch shows the area of the Garden as it is laid out at this date—July 1927. Future editions will show further changes as the work of reconstruction proceeds.

From its foundation the Botanic Garden has been devoted to the teaching of Botany, and its usefulness in this respect has determined the laying out of its area.

Herbaceous Garden.—A considerable space is occupied by a collection of herbaceous plants arranged for study in natural orders.

Rock Garden.—There is an extensive rockwork upon which alpine and rarer herbaceous plants are cultivated.

Arboretum.—The whole of the western area of the Garden is in process of arrangement as an Arboretum of trees and shrubs, and the positions of some of the chief genera are indicated on the plan. The Coniferæ are now placed in the ground adjacent to the Rock Garden.

Herbaceous Border.—Along the North Boundary of the Arboretum a mixed Herbaceous Border has been placed.

The **Plant-Houses** are still in process of reconstruction. So far as they have been rearranged at the present time they consist of a long range to the north of the herbaceous collection, composed of a Central Green-house **(C)**, from the sides of which two Corridors run east and west. In the Entrance Porch **(D)** to the Central Green-house is a collection of Insectivorous Plants. From the Eastern Corridor two houses project to the south—one **(A)** occupied by plants of Dry Regions, the other **(B)** containing

Economic Plants of both Tropical and Temperate Regions. Ending the Corridor is a house **(AA)** occupied by Rhododendrons and other Temperate Shrubs and Trees; opening from it are houses **(BB** and **CC)** in which an indoor rockery has been built for Rock Plants which do not thrive in the open. To the south side of the Western Corridor are attached two houses—one **(E)** for Orchids and one **(F)** for Plants of Tropical and Warm Regions. The western end of the Corridor opens into a domed house **(G)** for Ferns of Tropical Regions which are planted out, and attached to it are two houses running southwards, one of which **(H)** is occupied by Tropical Plants, and the other **(I)** is used for Heaths and Hardwooded Plants. From the northern wing of this domed house opens a house **(J)** devoted to monocotylous Plants of Tropical and Warm Regions, specially Aroids, Scitamineæ, Liliaceæ, and Amaryllidaceæ. Out of this opens the house **(K)** for Bromeliads; and in another house **(L)** opening from this are Pitcher Plants. Behind the western end of the Front Range there is a Temperate House **(M)** for Palms, Tree-Ferns, and Coniferæ, and a Palm-House **(N)**.

Adjoining Inverleith Row is a group of buildings including the **Museum (O)**, the **Laboratories (P)**, the **Lecture Hall (Q)**, the **Library (R)**, and the **Office (Y)**, for transaction of business with the public.

The **Museum** contains a series of exhibits illustrating the form and life-history of plants, and these are arranged so as to facilitate their use in teaching.

The **Library** contains over seventeen thousand volumes. The leading botanical and horticultural periodicals are taken and may be consulted like the other books by the public. Books are not lent from the Library.

Herbarium.—In the southern portion of the Garden is the Herbarium **(S)**. It contains a fair representation of the Floras of the world.

Ladies' Cloak-Rooms are at **(T)** and **(T)**. **Gentlemen's Lavatories** will be found at **(V)** and **(V)**.

From the higher ground of the Arboretum—at the point marked **(X)** on the plan—a fine panoramic view of the City of Edinburgh, flanked on the east by Arthur's Seat, and on the west by the Pentland Hills, is obtained.

TEACHING IN THE GARDEN.

In the year 1892 the Board of Agriculture, then recently established in England, assigned a small grant to the Royal Botanic Garden towards the institution of a Course of Instruction in the Sciences underlying the Practice of Horticulture and Forestry for the benefit of young men and women desiring to become Gardeners and Foresters. The fact deserves record, because it marks the introduction in Scotland of a systematised effort to provide scientific instruction to practical men in Gardening and Forestry.

The Course of Instruction has been carried on since. The following schedule—copies of which may be obtained by application to the Regius Keeper—indicates the terms upon which young men and women are at present admitted to the Course :—

Admission of Probationers.

1. The First Commissioner of His Majesty's Works is willing to consider applications from young men and women intending to become Gardeners or Foresters who may wish to serve for a period in the Royal Botanic Garden, Edinburgh.

2. The number of young men and women who can be so admitted is limited.

3. Such entrants will be in the position of Probationers, as a special class in the service of the Garden. Their work will be such as may be assigned to them, and they will work under all the regulations in force in the Garden.

4. Applicants must be unmarried and not over 25 years of age.

5. Each Applicant must furnish a medical certificate of fitness and a recommendation and certificate of character from a person of position to whom the Applicant is well known, and if the Applicant is or has been previously in a situation, a certificate from the present or last employer must be forwarded. Applicants who have had practical experience in Gardening or Forestry must state the amount of this and also if they have had experience of cultivation of plants under Glass.

6. Probationers will have the opportunity of attending a Course of Instruction in the Sciences underlying the practice and

the principles of Horticulture and Forestry free of charge, and they must attend the course, and also use the Library and Reading Room of the Garden. The subjects of Instruction, which are arranged in a curriculum extending over from two and a half to three years, are :—Botany, Chemistry, Entomology, Geology, Meteorology, Physics, Surveying and Mensuration, Field Engineering, Bookkeeping, Horticulture, and Forestry, and these are taught practically as far as possible.

7. At the conclusion of the Course of Instruction the Probationer will in ordinary course give place to a new entrant.

8. Any Probationer who does not show satisfactory progress in studies, or who does not give satisfaction otherwise, will be removed.

9. A grant in aid (subsistence allowance) will be given to each Probationer. The amount given to a Probationer at admission will depend upon his or her age, experience and capacity. The minimum will be at the rate of ten shillings a week, and the maximum at the rate of twenty-one shillings a week. In addition there is at this date (1927) a war bonus. Probationers who receive at entrance less than the maximum may, after admission, receive increments in relation to fitness and merit alike in the work of the Garden and in the Course of Instruction.

10. Holiday leave to the amount in all of eight working days in the year, in addition to Christmas Day, New Year's Day, Victoria Day, Spring and Autumn Holidays, is allowed after six months' service.

11. Probationers may be called upon to work on Sundays, and will receive remuneration for such work on a recognised scale.

12. Applicants must distinctly understand that the times of duty of Probationers are such as may be necessary, that admission as a Probationer is only an ordinary weekly hiring subject to a week's notice from any day, and subject to instant dismissal in case of misconduct, with subsistence allowance up to date of dismissal only, and does not entitle to any superannuation or to any compassionate or other allowance at the termination thereof, excepting such allowance or gratuity as might be awarded under the Superannuation Act, 1887 (Secs. 1 and 4), or any Act or Acts amending the same. Further, in the event of any injury happening to a Probationer in respect of which compensation

would be payable under the Workmen's Compensation Act, 1906, any such pay which may be granted will be inclusive of such compensation payable under the Act in question, and an amount equivalent to such compensation will be deducted from any payment to dependants should the injury terminate fatally.

13. Young men or women desiring admission as Probationers must fill up, in their own handwriting, the form below, and return this paper addressed to

THE REGIUS KEEPER,
ROYAL BOTANIC GARDEN,
EDINBURGH.

14. Applicants will be informed if their names have been entered for admission, and on a vacancy occurring will receive notice thereof. Should there be no vacancy within six months from the date of application, it must be renewed if the Applicant still desires to work as a Probationer in the Royal Botanic Garden. If not renewed, the applicant's name will be removed from the waiting list.

15. The First Commissioner desires to impress upon applicants that he grants this privilege in the expectation that Probationers will earnestly endeavour to make use of and profit by the opportunities of acquiring knowledge placed within their reach, and will recognise that it is incumbent upon them at the same time to perform with zeal the duties assigned to them.

Form to be filled up by Applicants for Admission as Probationers in the Royal Botanic Garden, Edinburgh.

Name of Applicant
Address
Date of Birth
Birthplace
Forester or Gardener
Name and address of present (or last) employer
Length of time in present situation
Previous situations and length of time in each (Gardeners to state amount of their experience in cultivation of plants under Glass)

Signature of Applicant.....

Date.....

Lectures to the Public.

The Regius Keeper from time to time gives lectures which are open to the public.

Research.

The **Laboratories** are open to anyone desirous of undertaking Botanical Research.

Specimens for Private Study.

Specimens for private study are supplied, as far as the resources of the Garden will permit, to visitors, teachers, and students who make written application to the Regius Keeper. Application forms may be obtained at the office of the Garden.

Plants and Seeds are not sold from the Garden.

Publications.

In 1900 appeared the first number of *Notes from the Royal Botanic Garden, Edinburgh,* for the purpose of publishing reports upon the condition and progress of the Garden, records of scientific investigations carried on in the Garden, and notices of matters of interest relating to plant-life which have come under the observation of the Staff. The *Notes* are available in exchange for publications of kindred institutions, and are on sale at the gates of the Garden and may be purchased either directly or through any Bookseller from H.M. Stationery Office (Scottish Branch), 120 George Street, Edinburgh. The parts are not issued at fixed periods. Fourteen volumes have been completed.

A short descriptive *Sketch of the Garden* may be purchased at the gates.

A **Seed List** containing the names of the plants cultivated from which seeds have been collected during the year is published in December. The seeds are available for exchange.

Botanical Department of the University of Edinburgh.

DURING nearly two centuries the offices of Regius Keeper of the Royal Botanic Garden and Professor of Botany in the University of Edinburgh have been held by the same person, and it has become the custom that the students of the University come to the Garden for instruction in Botany. The whole work of the Botanical Department of the University is carried out in the Garden by the University Staff, which at this date is constituted as follows :—

Professor of Botany	William Wright Smith, M.A., F.L.S., F.R.S.E.
Reader in Mycology and Bacteriology .	Malcolm Wilson, D.Sc., F.L.S., F.R.S.E.
Lecturer on Forest Botany and Indian Forest Trees	James Lindsay Salmond Smith, M.A., B.Sc.
Lecturer on Botany	James Robert Matthews, M.A., F.L.S., F.R.S.E.
Lecturer on Plant Physiology and Agricultural Botany . . .	Robert James Douglas Graham, M.A., D.Sc., F.R.S.E.

Enumeration of Visitors to the Royal Botanic Garden, Edinburgh, during the years 1889–1926.

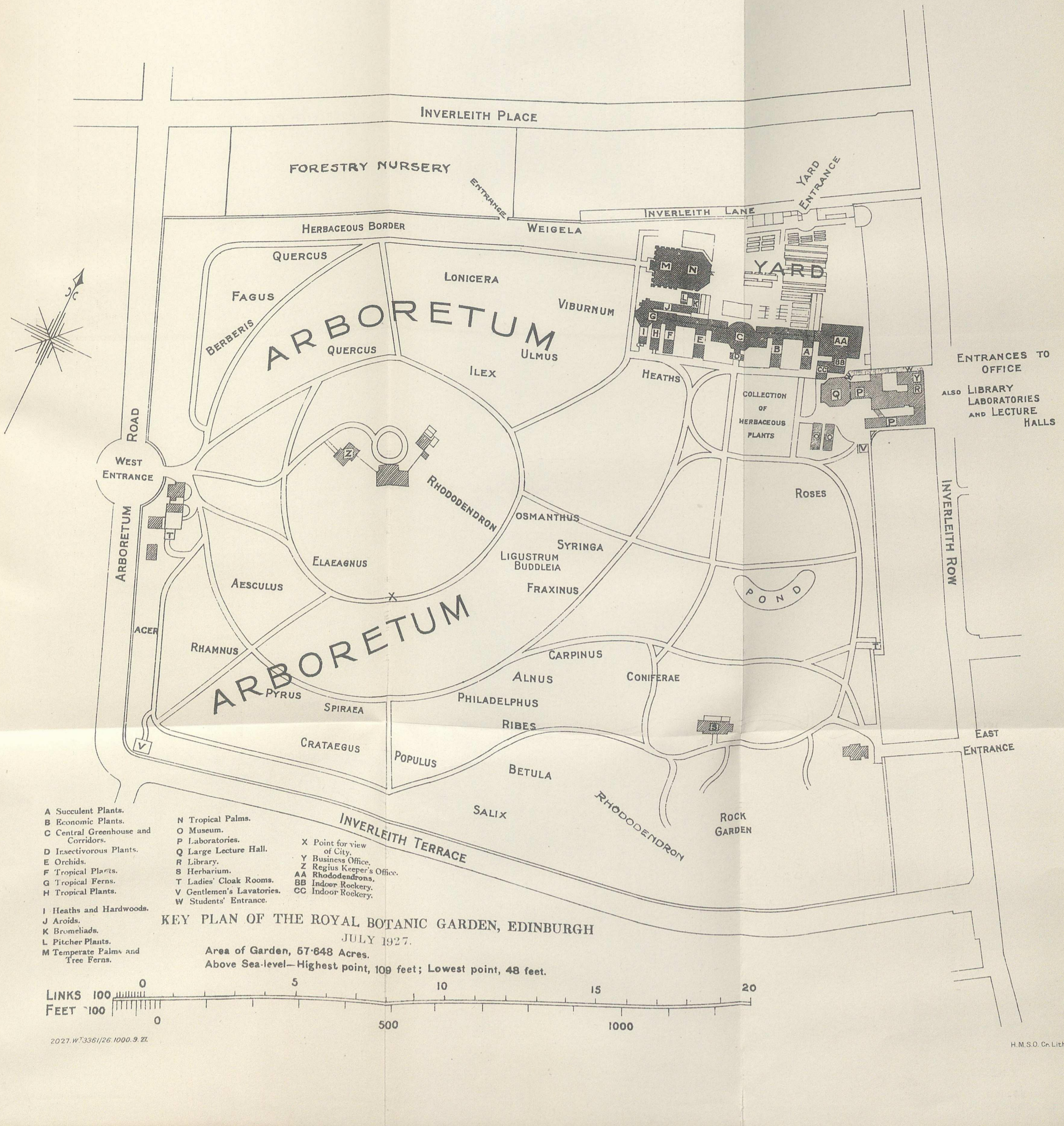
On the 1st of April 1889, the control of the Royal Botanic Garden, Edinburgh, was vested in the Commissioners of His Majesty's Works, and the Garden became subject to the "Act for the Regulation of the Royal Parks and Gardens, 1872." From the date specified the Garden has been opened to the public on Sundays, and also for an extended period on Week-days. The table below shows the number of visitors to the Garden on Sundays and Week-days respectively during the thirty-eight years which have elapsed since the Garden was transferred to the Commissioners of His Majesty's Works :—

Year	Total in Year.	Total on Sundays.	Largest Number on a Sunday.	Smallest Number on a Sunday.	Total on Week Days.	Largest Number on a Week Day.	Smallest Number on a Week Day.
*1889...	368,219	187,457	13,935	129	180,762	3,834	50
1890...	446,540	216,345	11,262	91	230,195	4,032	65
1891...	454,083	220,543	9,445	340	233,540	3,228	76
1892...	437,205	218,233	13,581	149	218,972	2,666	43
1893...	531,232	271,893	12,860	45	259,339	3,197	40
1894...	526,948	268,793	13,515	68	258,155	3,153	28
1895...	516,608	264,497	15,227	127	252,111	5,292	26
1896...	516,407	296,576	13,517	527	219,831	3,825	30
1897...	475,210	271,730	16,001	74	203,480	3,153	20
1898...	443,289	258,449	12,840	123	184,790	3,234	39
1899...	461,686	259,424	15,161	105	202,262	2,758	30
1900...	561,359	324,856	17,700	268	236,503	3,667	53
1901...	586,461	339,229	19,256	258	247,232	4,627	45
1902...	522,363	295,892	15,561	165	226,471	5,461	60
1903...	606,184	355,310	19,583	135	250,874	4,202	41
1904...	639,066	367,290	20,719	374	271,776	3,564	42
1905...	584,546	330,995	19,859	100	253,551	2,708	60
1906...	699,558	394,030	21,959	84	305,528	3,760	44
1907...	674,208	422,899	25,601	708	251,309	3,365	40
1908...	585,171	342,106	20,549	570	243,065	2,898	39
1909...	683,243	394,861	24,334	165	288,382	3,483	71
1910...	777,864	430,776	21,813	244	347,088	3,598	80
1911...	708,943	420,163	22,765	82	288,780	3,828	66
1912...	714,170	383,476	25,930	88	330,694	3,515	81
1913...	876,585	500,205	27,398	680	376,380	4,100	59
1914...	776,280	414,518	25,521	106	361,762	5,337	62
1915...	730,761	442,179	21,155	125	288,582	3,827	55
1916...	695,364	367,713	20,227	98	327,651	3,926	41
1917...	737,070	428,752	21,531	170	308,318	3,293	59
1918...	727,782	320,450	20,811	236	407,332	3,911	39
1919...	811,937	436,055	21,775	231	375,882	6,274	52
1920...	644,856	399,398	19,340	481	245,458	3,777	84
1921...	702,481	418,832	20,892	797	283,649	4,027	48
1922...	816,272	369,636	23,979	519	446,636	3,741	71
1923...	782,175	427,155	22,424	549	355,020	4,849	108
1924...	697,463	397,918	19,964	574	299,545	3,476	128
1925...	835,955	490,029	21,893	173	345,926	4,001	38
1926...	851,904	486,653	21,725	633	365,251	3,314	68
Total for Thirty-eight years.	24,207,448	13,435,366	...	...	10,772,082	...	...

* Numbers in this year for nine months only.

Printed under the authority of His Majesty's Stationery Office
by McCorquodale & Co. Limited, Printers, Caxton Works, Glasgow.

(114D.) Wt. 3361/26. 1,000—9/27. (G. 4.)



KEY PLAN OF THE ROYAL BOTANIC GARDEN, EDINBURGH

JULY 1927.

Area of Garden, 57·648 Acres.

Above Sea-level—Highest point, 109 feet; Lowest point, 48 feet.

2027. W.T.3361/26. 1000. 9. 27.

H.M.S.O. Cr. Lith.