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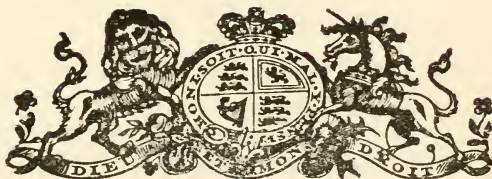
ROYAL SOCIETY

OF

TASMANIA

FOR THE YEAR

1880.



Tasmania:

WILLIAM THOMAS STRUTT, GOVERNMENT PRINTER, HOBART.

1881.

ROYAL SOCIETY OF TASMANIA.

Patron:

HER MAJESTY THE QUEEN.

President:

HIS EXCELLENCY LIEUTENANT-GENERAL SIR JOHN HENRY
LEFROY, K.C.M.G., C.B., F.R.S.

Vice-Presidents:

HON. J. W. AGNEW, M.D., M.L.C.
JAMES BARNARD, ESQ.
HIS HONOR MR. JUSTICE DOBSON.
THOMAS STEPHENS, ESQ., M.A., F.G.S.

Council:

*HIS HONOR MR. JUSTICE DOBSON.
*C. H. GRANT, ESQ.
*RUSSELL YOUNG, ESQ.
*HON. J. W. AGNEW, M.D.
F. ABBOTT, ESQ., F.R.A.S.
JOHN SWAN, ESQ.
JUSTIN M'C. BROWNE, ESQ.
A. G. WEBSTER, ESQ.
C. T. BELSTEAD, ESQ.
T. STEPHENS, ESQ., M.A., F.G.S.
H. J. BUCKLAND, ESQ.
J. BARNARD, ESQ.

Treasurer:

C. J. BARCLAY, ESQ.

Hon. Secretary:

JAMES BARNARD, ESQ.

Auditors of Annual Accounts:

F. BUTLER, ESQ.
JOHN MACFARLANE, ESQ.

Auditors of Monthly Accounts:

H. J. BUCKLAND, ESQ.
C. T. BELSTEAD, ESQ.

Curator of the Museum:

MR. T. ROBLIN.

Superintendent of Gardens:

MR. F. ABBOTT, JUN.

*Members who retire next in rotation.

Corresponding Members.

- *Members who have contributed Papers which have been published in the Society's Transactions.

W. H. Archer, Esq., Sydney, New South Wales.

John Gould, Esq., F.R.S., London.

Sir Joseph Dalton Hooker, C.B., K.C.S.I., &c., &c., London.

- *Baron F. Von Müller, K.C.M.G., M.D., F.R.S., F.L.S., &c., Government Botanist, Melbourne, Victoria.

C. Tomlinson, Esq., F.R.S., F.C.S., &c., Highgate, near London.

- *G. Bennett, Esq., M.D., F.Z.S., Sydney, New South Wales.
Professor G. Neumayer, Munich.

- *Rev. J. E. Tenison-Woods, F.L.S., F.G.S., F.R.G.S.

Dr. W. O. Sonder, Foreign Hon. Sec. Society of Naturalists, Hamburg.

Rev. J. J. Bleasdale, D.D., F.G.S.

- *Captain W. V. Legge, R.A., F.Z.S., M.R.A.S., England.

Professor John Agardh, M.D., University of Lund, Sweden.

Dr. Julius Haast, F.R.S., Director of Museum, Christchurch, New Zealand.

Archibald Liversidge, Esq., F.G.S., Professor of Geology and Mineralogy in the Sydney University.

Professor W. Harkness, U.S.N., United States Naval Observatory, Washington.

Henry Haylin Hayter, Esq., Government Statist, Melbourne.

- *Frederick M. Bailey, Esq., Brisbane, Queensland.

- *Ralph Tate, Esq., Assoc. Lin. Soc., F.G.S., Professor of Natural History, University of Adelaide.

- *John Brazier, Esq., C.M.Z.S., Sydney.

- *Richard Schomburg, Ph.D., C.M.Z.S., Director of Botanic Gardens, Adelaide.

Professor G. F. H. Ulrich, F.G.S., Melbourne.

Alexander Wallace, Esq., Secretary Board of Agriculture, Victoria.

- *F. W. Hutton, Esq., F.G.S., C.M.Z.S., Professor of Biology, Canterbury College, Christchurch, New Zealand.

Rev. George Brown, C.M.Z.S., Sydney.

Professor F. M'Coy, F.G.S., University, Melbourne.

R. J. L. Ellery, Esq., F.R.S., F.R.A.S., Government Astronomer, Melbourne.

Mons. J. N. Verschaffelt, Ghent, Belgium.

Robert Etheridge, jun., F.G.S., British Museum.

James Hector, M.D., C.M.G., F.R.S., F.G.S., Director
Geological Survey of New Zealand, Wellington.

Rev. Charles Rogers, LL.D., Secretary Royal Historical
Society, London.

E. P. Ramsay, F.L.S., Curator of Australian Museum,
Sydney.

Hon. W. M'Leay, F.L.S., Sydney.

William Tompson Bednall, Adelaide, South Australia.

List of Fellows and Members.

* Fellows who have contributed Papers which have been published in the Society's Transactions. † Denotes Life Membership.

- * Abbott, Francis, F.R.A.S., F.R.M.S., Hobart.
- * Abbott, F., jun., ditto.
- Adams, G. P., ditto.
- * Agnew, Hon. J. W., M.D., M.L.C., Fellow of the Linnean Society of New South Wales, ditto.
- Aikenhead, Hon. J., M.L.C., Launceston.
- Adams, R. P., Solicitor-General, Hobart.
- Aubin, Mrs. F., ditto.
- Allport, Morton John Cecil, ditto.

- Bilton, H., Glenorchy.
- * Barnard, James, Hobart.
- Butler, Francis, ditto.
- * Bromby, Right Rev. C. H., D.D., Lord Bishop of Tasmania, Hobart.
- Bright, R. S., M.R.C.S., Eng., ditto.
- Butler, Henry, F.R.C.S., Eng., ditto.
- Buckland, H. J., ditto.
- Browne, Justin M'C., ditto.
- Barclay, C. J., ditto.
- Bedford, W., Anstey Barton.
- Belstead, C. T., Hobart.
- Belbin, W., M.H.A., ditto.
- Benjafield, H., M.B., ditto.
- Browne, Hon. N. J., M.H.A., Meadow Banks, Glenora.
- Bidencope, J., Hobart.
- Butler, E. H., ditto.
- Bailey, Rev. J. H. Brooke, ditto.
- Barnard, C. E., M.D., New South Wales, ditto.
- Brock, H. J., Campania.
- Beddome, C. E., Hillgrove, Brown's River Road.
- Burgess, W. H., M.H.A., Mayor of Hobart.
- Barnes, William, Launceston.
- Bethune, John C., Dunrobin.
- Barnes, William, Trevallyn, Launceston.

- Chapman, Hon. T. D., M.L.C., New Town.
- Cook, Henry, Hobart.
- Clark, J. M., ditto.
- Creswell, C. F., ditto.
- * Cotton, Francis, Swanport.
- Crawford, Lieut.-Colonel, Hamilton-on-Forth.

Clarke, J. K., New South Wales.
 Cruttenden, Thomas, Woodsden, Buckland.
 Coote, Audley, Sandy Bay.
 Cowle, Miss, Hobart.
 Crowther, A. B., M.R.C.S. Eng., ditto.
 Crosby, R., ditto.
 Crowther, E. L., M.D., ditto.
 Crouch, E. J., M.R.C.S. Eng., ditto.

*Dobson, His Honor Mr. Justice, ditto.
 Dobson, H., ditto.
 Dowdell, C., ditto.
 Davies, R. L., ditto.
 Dodds, the Hon. J. S., M.H.A., ditto.
 Dobson, Hon. Alfred, M.H.A., ditto.

Elliston, C. H., ditto.
 Evans, T. M., ditto.

Fysh, Hon. P. O., ditto.
 Freeman, E. J., ditto.

†Gunn, R. C., F.R.S., F.L.S., Launceston.
 †Gellibrand, Hon. W. A. B., M.L.C., Hon. Member Leeds
 Institute, River Ouse.
 Grant, C. H., Hobart.
 Gray, Rev. John, Glenorchy.
 Grahame, W. H., Hobart.
 Giblin, Edward O., M.D., ditto.
 Grant, James, ditto.

*Hall, E. Swarbreck, M.R.C.S. Eng. ditto.
 Harris, Rev. R. D. P., M.A., ditto.
 Hunter, Henry, ditto.
 Huybers, A., ditto.
 Howell, F. G., ditto.
 Holden, L. A., M.R.C.S. Eng., ditto.
 Hookey, Vernon W., ditto.
 Henry, Robert, junr., ditto.

*Johnston, R. M., Hobart.

Kennerley, Hon. Alfred, Hobart.
 Kelsh, Rev. Thomas, Fingal.
 Kermode, W. A., Mona Vale.

Lewis, Hon. David, M.H.A., Hobart.

Legge, R. V., Cullenswood.
 Lucas, R. J., Hobart.
 Latham, G. H., ditto.
 Lovett, W., Colonial Auditor, ditto.
 Lord, R. W., Launceston.

Maclanachan, Hon. James, Ballochmyle.
 Macfarlane, James, Hobart.
 Macfarlane, John, ditto.
 Mather, J. B., ditto.
 Maxwell, C. M., ditto.
 *† Milligan, Joseph, F.L.S., England.
 Marsh, H. J., ditto.
 † Mace, G., Spring Bay.
 Morris, W. V., Hobart.
 Murphy, Most Rev. D., Bishop of Hobart.
 Macmichael, Jno. C., ditto.
 Maddox, Wm. Gordon, M.R.C.S. Eng., Launceston.
 Mason, Wm., M.R.C.S. Eng., ditto.

Napier, G. R., Hobart.
 * Nowell, E. C., ditto.
 Newstead, Rev. A. C., George Town.

Pillinger, J., Antill Ponds.
 Perkins, H. A., M.D., M.R.C.S. Eng., Hobart.

Roberts, H. L., ditto.
 Read, R. Cartwright, Redlands, New Norfolk.
 Riddoch, A., M.H.A., New Norfolk.
 Roblin, T., Curator of Museum, Hobart.
 Reynolds, W. J. J., ditto.
 Richards, Rev. George B., President of Horton College,
 Ross.

Seal, M., Hobart.
 Smith, His Honor Sir Francis, Chief Justice, ditto.
 † Solomon, Joseph, Hobart.
 * Stephens, T., M.A., F.G.S., Inspector of Schools, ditto.
 Story, Dr. G. F., Swanport.
 Salier, F. J., Hobart.
 * Swan, John, ditto.
 * Shoobridge, W. E., New Norfolk.
 Shoobridge, E., ditto.
 Simson, A., Launceston.

Scott, Hopton, Hobart.
 Swan, E. D., ditto.
 Sharp, J., ditto.
 Shoobridge, R. W. G., New Norfolk.
 Smith, C. H., Launceston.
 Stone, T., Hobart.
 Stanley, Captain, R.N., ditto.

*Travers, S. Smith, New Town.

Walch, James H. B., Hobart.
 Weaver, W. G., ditto.
 Whyte, Hon. James, ditto.
 Wilson, George, Mount Seymour.
 Wise, F. H., Hobart.
 Webster, A. G., ditto.
 Wright, Stephen P. H., Glenorchy.
 Westbrook, G. C., Hobart.
 Woodgate, E. W., Launceston.
 Walker, James Backhouse, Hobart.
 Wagenknecht, Albert, George's Bay.

Young, Russell, Hobart.

Obituary.

WILSON, the Hon. Sir JAMES MILNE, K.C.M.G.—President of the Legislative Council ; a Fellow of the Society from 1855. Died 29th February.

MEREDITH, the Hon. CHARLES, M.E.C.—A Fellow from 1856. Died 2nd March.

SMITH, PHILIP THOMAS.—A Fellow from 1852. To Mr. Smith's liberality the Society is indebted for its splendid and perfectly appointed microscope. Died 14th March.

GIBLIN, THOMAS.—A Fellow from 1848. Elected a Member of the Council in 1855. Died 21st August.

DAVIES, the Venerable Archdeacon, B.A.—One of the founders of the Society. Appointed Vice-President in 1858. Died 13th November.

MINUTES of the Annual General Meeting of the ROYAL SOCIETY OF TASMANIA, held at the Museum, Macquarie-street, at half-past Seven P.M. on Monday, 25th January, 1881 ; JAMES BARNARD, Esq., V.P., in the Chair.

THE advertisement by which the meeting had been convened having been read, the Chairman called upon the Secretary to read the Annual Report.

The Report for 1880 was then read.

On the motion of Mr. Solomon, seconded by Dr. Crouch, the Report was adopted, and ordered to be printed for circulation amongst the Fellows.

The Hon. Secretary, Dr. Agnew, reported that the retiring Members of Council were Messrs. C. T. Belstead, T. Stephens, H. J. Buckland, and J. Barnard ; that these names had been posted in the Library, agreeably to Rule 32; and that no other nominations had been received.

It was resolved that the retiring Members of Council be re-elected.

Messrs. F. Butler and John Macfarlane were again elected Auditors of Annual Accounts.

Dr. E. O. Giblin, Messrs. W. H. Grahame, J. C. Bethune, and James Grant were elected Fellows of the Society.

Dr. Agnew notified that, owing to his intended departure for Europe, he had resigned the Secretaryship of the Society ; and that Mr. James Barnard had been duly appointed to the vacant office, in accordance with the provisions of "The Royal Society Act," 18 Vict. No. 4.

It was resolved, on the motion of Mr. Stephens, seconded by Mr. C. H. Grant, "That the best thanks of the Society were due to Dr. Agnew for his exertions on its behalf during the long term for which he had fulfilled the duties of Honorary Secretary."

Dr. Agnew returned thanks for the very warm and cordial manner in which the motion had been proposed and seconded.

R E P O R T.

THE session of 1880 opened on the 13th April, on which occasion the following papers were read:—"A description of twenty-two species of Algæ from the New Hebrides," by Dr. W. O. Sonder, of Hamburg; "On some Australian Slugs," by Prof. R. Tate, F.G.S., of Adelaide; "A contribution to our knowledge of the Unionidæ of the Launceston Tertiary Basin," by R. Etheridge, jun., F.G.S.; and the under-mentioned communications were brought forward at the various subsequent meetings:—"Description of a new species of *Helix*, found in a calcareous sandstone deposit at Kent's Group," by R. M. Johnston, F.L.S.; "On some Tasmanian Plants," by Baron Ferdinand Von Müller, K.C.M.G.; "On Queensland Lichens," by F. M. Bailey, F.L.S., and the Rev. J. E. Tenison-Woods, F.L.S., &c.; "On a collection of Fossil Fruits from the Black Lead, Gulgong, N. S. Wales," by C. E. Barnard, M.D.; "On some introduced Plants of Australia," by the Rev. J. E. Tenison-Woods, F.L.S., F.G.S.; "Oyster and other Fisheries," by Captain Stanley, R.N.; "A description of two new species of fish caught in an estuary of the Derwent," by R. M. Johnston, F.L.S.; "Introductory Notes to the Natural History of Tasmania," by the Rev. J. E. Tenison-Woods, F.L.S.

It must be mentioned with extreme regret that the obituary for the year embraces the names of some of the oldest members. Archdeacon Davies was one of the founders of the Society, and always took the liveliest interest in its affairs; whilst the names of Sir J. M. Wilson, Mr. Charles Meredith, Mr. P. T. Smith, and Mr. Thomas Giblin indicate the loss the Society has sustained by their death.

The Council also regret to report that, owing to failing health, Mr. Abbott has been obliged to discontinue those meteorological observations which during the long period of thirty years he has conducted with so much credit to himself and advantage to the Society. It is expected,

however, that arrangements will be made by which these observations will be resumed at no distant date, on a basis similar to that in the neighbouring colonies. The Society is indebted to Mr. W. E. Shoobridge for the results of his observations during the year; and the contributions from the light-houses and Mount Nelson have been received as usual. Two vacancies have occurred in the list of Vice-Presidents; the one by the absence from the colony of the Right Rev. Bishop Bromby, the other by the death of the Ven. Archdeacon Davies. His Excellency has been pleased to appoint His Honor Mr. Justice Dobson, and T. Stephens, Esq., M.A., F.G.S., to the offices.

COUNCIL.

Two vacancies in the Council, also caused by the absence of the Bishop and the death of Archdeacon Davies, have been filled up by the election of Mr. Justice Dobson and Mr. C. H. Grant. The list of retiring Members has been posted in the library for the last three days, agreeably to Rule No. 33.

FINANCE.

The income from all sources was as follows:—Government grant in aid to Museum, £200; to Gardens, £450; annual subscriptions, £145 10s.; special donations, £165 5s.; from Marine Board, £20; sale of plants, &c. at Gardens, £75 1s. 10d.; from Morton Allport Memorial Fund, £10 19s. This, with £30 12s. in the hands of the Superintendent of the Botanic Gardens for weekly payment of men's wages, and arrears of subscriptions £40, will give a total of £1137 7s. 10d. The expenditure with liabilities, as per balance sheet, amounted to £1145 2s. 5d., leaving a balance to debit of £7 14s. 7d. It should be stated that, owing to the reduced amount for 1880 of the grant in aid to the Gardens, a deficiency of £25 on account of their working expenses was supplied by the Society. This advance, however, will be repaid during the year 1881, the grant having been restored to its former amount. It will be remembered that a fund collected to provide a memorial of the late Mr. Morton Allport was, in accordance with a resolution of the subscribers, invested for

the purpose of procuring scientific works for the library. The first year's interest on this sum, amounting to £10 19s., has been received, and placed in the Savings' Bank for the purpose indicated.

GARDENS.

The past year has been one of great financial difficulty. The grant in aid, which for some years previously had been £600, was reduced to £450 for 1880. This loss of income, taking place after various increases had been made in wages and salaries, completely upset existing arrangements. It became necessary in consequence to discharge the only skilled assistant, and to make other reductions, the effects of which have been detrimental in the highest degree; and, notwithstanding all possible reductions, it has not been found practicable to keep the expenditure within the income, the result being that the gardens, as shown by the balance-sheet, are indebted to the Society to the amount of £25 17s.

The Arboretum has been completed, with the exception of laying down the ground in grass. This will be proceeded with in the proper season, and the effect at no distant date will be that this locality will be one of the most attractive in the gardens.

The old garden seats have been repaired and repainted, twelve new ones have been erected, and in order still further to consult the comfort and convenience of the public it is intended to supplement this number during the incoming year.

About 300 plants, many of which are of a very ornamental character, have been introduced. From the Royal Gardens, Kew, was received a box containing upwards of 100 varieties of willow cuttings; but, unfortunately, arriving in the heat of summer all efforts to retain vitality in them proved futile, and, with the exception of two varieties, all perished. From Messrs. H. Low & Co., London, was received a case of plants in excellent condition, consisting principally of ornamental variegated Coniferæ and a few choice herbaceous plants.

Thanks are due to the donors of plants and seeds, and specially to Sir J. D. Hooker, Director of the Royal Gardens, Kew; Baron Ferd. Von. Müeller, Government Botanist, Melbourne; Messrs. H. Low & Co., London; W. R. Guilfoyle, Director Botanic Gardens, Melbourne; the Chamber of Agriculture, Washington, United States, &c. Thanks are also due to those captains of vessels who have furthered the interests of the gardens by the carriage of plant cases free of charge.

The gang of prison labour has been continued during the year, and has rendered material assistance in the rougher operations.

The estimated number of visitors for the year was 53,773.

MUSEUM.

Mr. E. D. Swan has again given much time and attention to the ornithological collection, and has completed naming a large number of specimens. He has also bestowed a considerable amount of labour on cleaning and remounting the entomological specimens which had previously been distributed about the Museum in various small cases. The insects have been placed in glazed drawers, by which means they are rendered more readily accessible for inspection, and much less liable to injury. The whole of the Tasmanian fossils have been removed to the table cases in the large upper room for convenience of re-arrangement and classification; but it has not yet been found possible to make much progress with this important work.

A few new species of land and freshwater shells have been added to the collection. As on former occasions, Mr. Legrand has given his assistance in arranging the conchological specimens, and by his voluntary attendance has afforded material aid in keeping order in the upper rooms during the hours the Museum has been open to the public on Sundays.

The number of visitors during the year was,—on Sundays, 10,201; on week days, 9730; total, 19,931.

STATEMENT of the Funds of the ROYAL SOCIETY OF TASMANIA for the Year 1880.

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Receipts.			Expenditure.		
£	s.	d.	£	s.	d.
Annual Subscriptions from 68 Members			Jan. 20—Balance overdrawn at Commercial Bank, as per statement for 1879 ..		
102	0	0		185	7 2
Ditto, arrears from former years ..					
43	10	0			
From Marine Board for clerical assistance in completing Meteorological Tables					
20	0	0			
Special Donation					
110	0	0			
Ditto					
50	0	0			
Ditto					
5	5	0			
From A. G. Webster, Esq., on account of the Morton Allport Memorial Fund					
10	19	0			
<i>Total Royal Society</i>					
..		341 14 0			
<i>Museum.</i>					
Grant in aid from Treasury					
..		200 0 0			
<i>Botanic Gardens.</i>					
Grant in aid from Treasury					
450	0	0			
Proceeds of sale of Plants, Flowers, Fruits, &c.					
75	1	10			
<i>Total Royal Society</i>					
525	1	10			
<i>Museum.</i>					
Salary of Curator					
125	0	0			
Wages of Attendant					
52	0	0			
Wages for Sunday duty					
13	0	0			
Premium of Insurance					
4	15	8			
Purchase & preparation of Specimens					
30	19	9			
Water Rate					
5	13	4			
Sweeping Chimneys					
0	10	6			
Fuel and Light					
4	7	3			
Sundries and Petty Cash					
2	13	0			
Ironmongery, Brushes, &c.					
4	13	10			
<i>Total Royal Society</i>					
134	19	1			

Freight and Carriage of Specimens.. 0 12 0
 Fittings & Repairs, including timber 5 7 7
Total Museum..... 249 12 11

Botanic Gardens.

Salary Superintendent 200 0 0
 Wages of Labourers 280 18 4
 Tools and Repairs..... 3 13 0
 Freight and carriage of Plants..... 9 6 6
 Stationery and Stamps..... 2 16 8
 Horse Hire..... 6 0 0
 Ironmongery, &c..... 16 18 4
 Repair of Buildings, Timber, &c..... 1 17 6
 Seeds, &c. 2 12 0
 Sundries 19 10 9
 Water Rate 3 3 4
 Flower Pots 1 15 0
 Cartage, &c..... 0 12 6
 Fuel 1 15 0
Total Botanic Gardens... 550 18 11
 Stamped Cheque Book..... .. 0 8 4
 £1130 2 5

Audited and found correct.

JOHN MACFARLANE.
 FRANCIS BUTLER.

21st January, 1881.

1881.

Jan. 13. Balance overdrawn at Com-
 mercial Bank..... 63 6 7

NOTE.

Dr.

To overdrawn balance at Bank..... 63 6 7
 Outstanding Accounts, including
 Wheatley & Co., London, estimated at 15 0 0

Cr.

By Cash in hands of Mr. Abbott for pay-
 ment of Wages at Gardens..... 30 12 0
 Subscriptions due 40 0 0

Balance to Debit..... ..

£7 14 7

70 12 0

78 6 7

£1130 2 5

STATEMENT of the MORTON ALLPORT Memorial Fund, 1880.

Receipts.		Expenditure.	
1880.	£ s. d.	1880.	£ s. d.
June 10. To cash received from A. G. Webster, Esq.	10 19 0	June 10. By Pass Book	0 0 6
Aug. 31. Interest, Savings' Bank.....	0 1 6	Dec. 31. Balance in Savings' Bank to credit of Fund	11 0 0
	£11 0 6		£11 0 6

18

Audited and found correct.

JOHN MACFARLANE.
FRANCIS BUTLER.

21st January, 1881.

*BOOKS and Periodicals purchased and presented during
1880.*

[Presentations marked thus *.]

Agricultural Gazette, The, current numbers.

Athenæum, The, ditto.

Arts, Journal of Society of, ditto.

* Astronomical Observations, Results of, taken at the Melbourne Observatory, 1871-75. From R. L. J. Ellery, Esq.

————— Society, Royal, Monthly Notices, current parts.

* Abbey, Cupar, Registers of, vol. 2. From the Hon. J. W. Agnew, M.D.

* Amphiboda, on Australian, by W. A. Haswell, M.A. From the Author. (Pamphlet.)

* Association, British, Report, 1879.

* ———, Royal Historical and Archaeological of Ireland, vol. 4, parts 36, 37, 38. From the Hon. J. W. Agnew, M.D.

Birds of Ceylon, Legge's, part 2.

* —, on the Anatomy of, by W. A. Haswell, M.A., (Pamphlet). From the Author.

* Coast Survey, United States. Report, 1874, 1876. From United States Government.

* Crustacea, on the Australian Species *Penæus* in the Macleay Museum, Sydney, by Wm. A. Haswell, M.A., &c. From the Author.

* Coleoptera, Manual of the New Zealand, by Captain Thomas Brown. From Dr. Hector.

* Calendar, Adelaide University, 1880. From the University.

* Coal Field, Bowen River, Queensland, Report on, by R. L. Jack, F.G.S., &c., Geol. Surveyor, North Queensland.

* Catalogues, British Museum; Birds, vol. 4, New Species of Hymenoptera; New Species Lepidoptera. From the Trustees British Museum.

* Conchology, Journal of, current numbers. From the Publisher.

* Education, Report of Council of, New South Wales, 1878. From Royal Society, N. S. W.

* Eucalyptographia, by Baron Ferd. Von Müller, K. C. M. G., &c., current parts. From the Author, on behalf of the Government of Victoria.

* Engineers and Shipbuilders in Scotland, Institution of, Transactions of, vol. 22.

Florist and Pomologist, current numbers.

* Free Trade and English Commerce, by Aug. Mongredien. From the Cobden Club.

* Flora of British India, part 7. From Sir J. D. Hooker, C.B., K.C.S.I.

Geological Magazine, current numbers.

* Geological and Geographical Survey of the Territories, United States, Bulletin, vol. 5, Nos. 2, 3.

* Geological Survey of India, Memoirs, vol. 16, part 1.

* ———, (Palæontologia Indica), Series 13, parts 1 and 2, vol. 4.

* ———, Records of, vol. 12, parts 2 and 3. From Government of India.

Geological Survey of India, Papers, by Robert Etheridge, jun., F.G.S.; viz.—

- “On an adherent Productus and a small Spiniferina.” “On the Remains of a large Crustacean from Lower Carboniferous Series, Berwickshire.”
- “On our present knowledge of the Invertebrate Fauna of the Lower Carboniferous or Calciferous Sandstone series of the Edinburgh neighbourhood.” “On the Genus Dithyrocaris,” &c. “Further remarks on adherent Carboniferous Productidæ.” “Notes on Carboniferous Mollusca.” “On the occurrence of a small and new Phyllopod Crustacean,” &c. “Description of Palæozoic Corals from Northern Queensland.”
- “New Carboniferous Mollusca.” “Carboniferous and Post-tertiary Polyzoa.” “Contributions to British Palæontology.” “Notes on the Bivalves in the Gilbertson collection. “On Ramipora in the Caradoc.”
- “On the Genus Cladochonus.” “Additional species of Fossils from the Upper Silurian Series, Pentland Hills.” “Notes on Silurian Fossils from Ayrshire.” “On the swollen condition of Crinoid Stems.”
- “Synopsis of known species of Australian Tertiary Polyzoa.” Description of a section of the Burdiehouse Limestone,” &c. List of titles of Scientific Reports and Papers. From the Author.
- Grasses, Indigenous, of New Zealand, Manual of the, by John Buchanan. From Dr. Hector.
- * Gold-fields, Charters Towers, Report on the. By R. L. Jack, F.G.S., F.R.G.S.

Institute, Royal Colonial, Proceedings, vol. 10. From the Institute.

- * ———, South Australian, Addresses delivered at laying of Foundation Stone, 1879. From the Secretary.

* Japan, Transactions of Asiatic Society of, 1879. From the Society.

Lincei, Real Accademia dei (Milan), publications of. From the Academy.

* Meteorological Memoirs, Indian, vol. 1, part 3.

——— Department, Indian, Report, 1878-9.

——— Observations, Indian, 1879. From H. F. Blandford, Esq., Meteorological Office, Calcutta.

* Meteorological Observatory, New York, Report of, 1879. From E. Draper, Esq., Director.

* Meteorological Society, Quarterly Journal of, current parts. From the Society.

* ——— Observations, 1878, Adelaide. From C. Todd, Esq., C.M.G.

——— Congress at Rome, Report of, 1879, and

* Meteorology of the Pacific. From Meteorological Office, London.

* ——— of Kerguelen Island. From ditto.

* ——— of Canada, January, 1880. From ditto.

* ———, Report, 1878. From G. T. Kingston, M.A.

* Meteorological Observations, New South Wales, 1875. From H. C. Russell, Esq.

* ———, New Zealand, January to June, 1879. From Dr. Hector.

* Mines, Department of, New South Wales, Report, 1878. From Government of New South Wales.

Magazine, Country Gentleman's, current numbers.

* Mollusca of New Zealand, by Professor W. F. Hutton. From Dr. Hector.

* Medical and Surgical History of the War of the Rebellion, part 2, vol. 1. From the Surgeon-General, United States Army.

Mining Surveyors and Registrars, Victoria, Reports of.

- * *Magnetical and Meteorological Observations, Batavia, vol. 4, 1879.* From Government of Netherlands, India.

Natural History, Annals of, current numbers.

—————, *of the Country round the head Great Australian Bight, by Prof. R. Tate.* From the Author.

Nature, current numbers.

- * *New Zealand, Statistics for 1878.* From N. Z. Government.

—————, *Geological Survey of, Reports of Explorations, 1878-9.* From Dr. Hector.

- * *Orchids, Fertilisation of, by C. Darwin, M.A., F.R.S.* From Mr. E. D. Swan.

- * *Palæontology of Victoria, Prodrömus of, parts 3 to 6, by Prof. M'Coy.* From Government of Victoria.

- * *Pinnipeds, North American, History of, by Joel Asaph Allen.* From the Author.

- * *Plants indigenous, in the neighbourhood of Sydney, by W. Woolls, Ph. D., F.L.S.* From the Author.

- * *Proceedings of Royal Institution of Great Britain, vol. 8, parts 5 and 6.* From the Institution.

- * *Reports, of Museum of Technology, of Council of Education, and Department of Mines, New South Wales.* From the Royal Society, N. S. Wales.

Science, Monthly Journal of, current numbers.

- * *Sciences, Academy of Natural, Philadelphia, Proceedings, 1879, parts 1, 2, 3.* From the Academy.

- * *Statistics of Tasmania, 1879.*

- * *Society, Royal, of New South Wales, Journal, vols. 12, 13, 1878-9.* From the Society.

- * ———, *Geological of London, Journal of, Nos. 138 to 140.* List of Fellows, 1879. From the Society.

- * ———, *Linnean of New South Wales, Proceedings of, vol. 4, parts 3, 4.* From the Society.

- * ———, *Royal Microscopical, Journal of.* From the Society.

- * ———, *Entomological of Belgium, compte rendu, current parts.*

- * ———, *Geological and Polytechnic of Yorkshire, Proceedings, vol. 7, part 2, 1879.* From Society.

- * ———, *Zoological, London, Proceedings, 1878, part 4, 1879, parts 1, 2, 3.* List of Animals in the Gardens, 1879. From the Society.

- * ———, *Royal Asiatic of Great Britain, Proceedings, vol. 2, parts 1 and 2.* From the Society.

- * ———, *Leeds Philosophical and Literary, Report, 79-80.*

- * ———, *Royal Geographical, Journal of, vol. 48, Proceedings, vol. 1, Nos. 3 to 12, vol. 2, part 1.*

- * ———, *Linnean, Journal of, vol. 17, parts 101, 102, (Botany); vol. 14, Nos. 77 to 80, (Zoology).*

- * ———, *Royal Astronomical, Memoirs of, vol. 44.* From the Society.

- * ———, *of Victoria, Transactions, vol. 16.* From the Society.

- * ———, *Royal des Sciences, Liege, Memoirs de la, tome 1.*

- * ———, *Royal, London, Proceedings, vols. 28, 29, 30.* From the Society.

- * *Transactions of Royal Historical Society, vol. 8.* From the Hon. J. W. Agnew, M.D.

- * Transactions of the Plymouth Institution, part 1879-80. From the Institution.
- * Uranometria Argentina, Results of Astronomical Observations taken at the National Observatory, Cordoba, by Prof. B. A. Gould; 1 vol. and maps. From the author.
- * Vegetable Kingdom, Lectures on the, by the Rev. W. Woolls, Ph. D., F.L.S. From the author.
- * Wilson Hall, Proceedings on laying memorial stone of, October 2nd, 1879. From the Council of the Melbourne University.
- * Wissenschaften; Akademie der (Munich), publications of, 1877, 1879. From the academy.
- * Weather, Aids to study and forecast of Weather. Pamphlet.
- * Zoologia et Palæontologia Miscellanea, by Prof. R. Tate. From the author.
- * Zoology, Museum of Comparative, Harvard College, Cambridge, U.S. America, Bulletin, vol. 5, Nos. 15, 16; vol 6, Nos. 1 to 7; vol. 7, No. 1. Reports of Curator. 1878-9. From the college.
- * Zoological Exercises for Students in New Zealand, by Prof. F. W. Hutton. From the author.
- * Zoology of Victoria, Prodromus of, by Prof. M'Coy. From Government of Victoria.

LIST of Donors to the Museum during 1880.

(For particulars of Donations see Lists in Monthly Proceedings.)

Abbott, F., junr., Botanic Gardens.	Maclanachan, Hon. J., Tunbridge.
Aldred, Mr. W., Hobart.	Powling, G. M., Hobart.
Barnard, Dr. C. E., Gulgong, N.S. Wales.	Parsons, C., Esq., Bothwell.
Bell, W. R., Mount Bischoff.	Patterson, Mr. J., Mount Bischoff.
Beddome, C. E., Esq., Kingston.	Rosier, Mr. J. W., Melbourne.
Boyes, W. L., George's Bay.	Ramsay, E. P., Esq., Australian Museum, Sydney.
Hainsworth, Mr. T., Mersey.	Raynor, Mr., New Norfolk.
Lovett, Mr. G. F., Hobart.	Taylor, Mr. A. J., Hobart.
Mackey, Mr. J., Hobart.	Wickes, Miss, Cherry Tree Opening.
M'Shane, Mr., Jerusalem.	Young, Mr. T., North West Bay.

DONORS OF PLANTS AND SEEDS TO THE ROYAL SOCIETY'S
GARDENS, 1880.

January. From Messrs. Hugh Low & Co., Clapton Nursery, London—Case containing 60 plants, nearly all dead.

From the Sydney Botanic Gardens—Case containing 100 miscellaneous plants.

From the Royal Gardens, Kew, near London—Box containing 112 varieties willow cuttings, nearly all of which died.

February. From Baron Ferd. Von Müeller, Government Botanist, Melbourne—9 packets palm seeds.

March. From the Chamber of Agriculture, Washington, United States, America—36 packets seeds.

From W. R. Guilfoyle, Esq., Director Botanic Gardens, Melbourne—10 packets palm seeds.

From the Royal Gardens, Kew, near London—2 packets seeds.

From C. E. Bethune, Esq., Sandy Bay—Box of orchids from Queensland.

From the Botanic Gardens, Saharunpore, N.W. Province India—11 packets seeds.

From Mr. Wm. Bull, New Plant Merchant, London—Box containing 59 varieties bulbs and tubers, and 24 packets seeds.

May. From Mr. Joseph Harris, South Yarra Nurseries, near Melbourne—Case containing 30 plants.

From Mr. G. Brunning, St. Kilda Nurseries, near Melbourne—Case containing 77 plants.

From the Royal Gardens, Kew, near London—Case containing 30 plants.

From Baron Ferd. Von Müeller, Government Botanist, Melbourne—2 packets seeds.

From H. J. Buckland, Esq.—28 varieties seeds from Canada.

June. From the Botanic Gardens, Melbourne—1 bundle containing 38 plants.

From L. A. Bernays, Esq., Acclimatisation Society, Queensland—Roots *Nymphæ Carulea*.

From Baron Ferd. Von Müeller, Government Botanist, Melbourne—6 packets seeds.

From Messrs. Shepherd & Co., Sydney—18 packets seeds.

From Mr. C. F. Creswell, Melbourne—Case containing 19 varieties *fuschia*.

August. From John Browne, Esq., Launceston—6 *Alsophila excelsa*.

From the Acclimatisation Society, Queensland—Box seedling *Coniferæ*.

From the Horticultural Society, Melbourne—Collection fruit scions.

From Mr. John Smith, Nurseryman, Reddel's Creek, Victoria—Bundle plants and seeds.

September. Per *Ethel*—One case plants from Messrs. Hugh Low, London, in good condition.

From Mr. J. Latham, Liverpool-street—30 packets imported seeds.

From Mons. Ch. Huber, Ayres, France—14 papers *Primula* seeds.

October. From Mr. C. Latham, Liverpool-street—Collection imported seeds.

From Baron Ferd. Von Müeller, Government Botanist, Victoria—3 packets seeds.

From the Hon. the Colonial Secretary—Seeds of *Vitis Californica*, received from San Francisco.

December. From the Chamber of Agriculture, Washington, United States—8 papers seeds.

DONATIONS OF PLANTS AND SEEDS SENT FROM THE ROYAL SOCIETY'S GARDENS, 1880.

January. To Messrs. Hugh Low, Clapton Nurseries, London—Case containing 100 *Araucaria excelsa*.

February. To Mons. J. Verschaffelt, Ghent, Belgium—6 tree ferns.

To Hugh Low, &c., Clapton Nurseries, London—6 tree ferns.

March. To Messrs. Veitch & Co., Royal Exotic Nursery, London—20 tree ferns.

March. To the Rev. R. H. Codrington, Norfolk Island—Box containing 36 plants.

To Mr. R. Harris, South Yarra Nurseries, Melbourne—Case containing 60 plants.

April. To Mr. S. Smith, Riddle's Creek, Victoria—Case containing 60 plants.

To Mr. J. Sangwell, St. Kilda Road, Melbourne—Case containing 40 plants.

To the Botanic Gardens, Sydney—Case containing 80 plants.

To the Botanic Gardens, Melbourne—Case containing 78 plants.

May. To Mr. G. Brunning, St. Kilda Nurseries, Melbourne—Case containing 56 plants.

June. To Messrs. Shepherd & Co., Darling Nurseries, Sydney—14 plants, 84 packet seeds

To Mr. G. Brunning, St. Kilda Nurseries, Melbourne—46 packets seeds.

To W. R. Guilfoyle, Esq., Director Botanic Gardens, Melbourne—44 packets seeds.

To Mr. Joseph Harris, South Yarra Nurseries, Melbourne—44 packets seeds.

To Baron Ferd. Von Müeller, Government Botanist, Melbourne—144 packets seeds.

To Mr. C. F. Creswell, Seedsman, Melbourne—20 plants, 180 papers seeds.

To Mr. E. B. Heyne, Seedsman, Adelaide—173 papers seeds and 25 plants.

To the Department Agriculture, Washington, United States—88 packets seeds.

To the Royal Gardens, Kew, London—35 packets seeds.

To J. F. Duthie, Esq., Superintendent Government Botanic Gardens, Saharunpore, N.W. Province, India—54 packets seeds.

To J. H. King, Esq., Superintendent Royal Botanic Garden, Howerah, Calcutta—40 packets seeds.

To the Acclimatisation Society, Queensland—2 papers seeds.

July. H. J. Buckland, Esq.—36 packets seeds for Canada.

To Mr. C. F. Creswell—60 varieties cuttings.

To the Acclimatisation Society, Queensland—36 packets seeds.

To Mr. C. F. Creswell, Sydney—36 packets seeds.

August. To the Sydney Botanic Gardens—2 bags sphognum moss.

November. To Mr. C. F. Creswell—Case containing 42 plants.

To Mr. Wm. Bull, New Plant Merchant, London—6 tree ferns.

PLANTS SUPPLIED FOR PLANTING PUBLIC PLACES DURING
1880.

Cornelian Bay Cemetery—40 plants *Pittosporum*.
Church of England Grounds, Torquay—50 plants.
The grounds, Police Office, Emu Bay—50 plants.
The grounds, Battery Point Sunday School—50 plants.
The Very Rev. Bishop Murphy, for church purposes—50 plants.
The Roman Catholic Church, Ouse—25 plants.
The Independent Chapel, Brighton—50 plants.
The Industrial School, Harrington-street—50 plants.
The grounds, Church of England, Richmond—25 plants.
The Corporation of Launceston—250 plants.
The Railway Reserve—12 *Coniferae*, 50 *Pittosporum* plants.
The Macquarie-street entrance to Queen's Park—60 plants.

F. ABBOTT, JUN.

LIST OF PLANTS INTRODUCED INTO THE ROYAL SOCIETY'S
GARDENS DURING 1880.

<i>Abies nobilis</i>	<i>Lilium martagon coccineum</i>
<i>Acer nigrum</i>	<i>Lilium Neigherrense</i>
<i>Acer negundo alba variegata</i>	<i>Lilium pomponium</i>
<i>Acer striatum</i>	<i>Lilium speciosum Kraetzeri</i>
<i>Agave Deserti</i>	<i>Lilium speciosum rubrum superbum</i>
<i>Azalea viscosa</i>	<i>Lilium Washingtonianum</i>
<i>Bignonia excelsa</i>	<i>Myrica Californica</i>
<i>Bomaria oculata</i>	<i>Nerium Madoni grandiflorum</i>
<i>Bouvardia intermedia</i>	<i>Nerium Monsieur Balagnier</i>
<i>Callarhoe macrorrhiza</i>	<i>Nerium splendens variegatum</i>
<i>Carya aquatica</i>	<i>Omphalodes verna</i>
<i>Calceolaria pavoni</i>	<i>Peristrophe lanceolata variegata</i>
<i>Castillegia indivisa</i>	<i>Punica granatum alba plena</i>
<i>Cassia fistula</i>	<i>Pyrus arbutifolia</i>
<i>Ceanothus papillosus</i>	<i>Quercus cerris Fulhamensis</i>
<i>Cerastium tomentosum</i>	<i>Quercus Hodginsoni</i>
<i>Cerasus padus</i>	<i>Quercus latifolia</i>
<i>Cornus alternifolia</i>	<i>Quercus lusitanica</i>
<i>Crataegus rivularis</i>	<i>Quercus Tauza</i>
<i>Cupressus Lawsoniana alba pendula</i>	<i>Retinospora leptoclada</i>
<i>Cupressus Lawsoniana glauca</i>	<i>Retinospora obtusa nana aurea</i>
<i>Daphne hyemalis</i>	<i>Rhamnus caroliniana</i>
<i>Dioscorea versicolor</i>	<i>Rhamnus lanceolatus</i>
<i>Dolichodiera tubiflora</i>	<i>Rhododendron elegans</i>
<i>Eryngium aquifolium</i>	<i>Rhododendron fragrantissima</i>
<i>Erythrina vespertilio</i>	<i>Rhododendron Jenkinsii</i>
<i>Eucalyptus bicolor</i>	<i>Richardsonia scabra</i>
<i>Eucalyptus gony calyx</i>	<i>Rogiera gratissima</i>
<i>Eucalyptus hemiophloia</i>	<i>Salix fragilis Monspeliensis</i>
<i>Eucalyptus longifolia</i>	<i>Salix nigra</i>
<i>Eucalyptus meliodora</i>	<i>Salvia cacaliæfolia</i>
<i>Eucalyptus paniculata</i>	<i>Scævola Plumieri</i>
<i>Eucalyptus piperata</i>	<i>Seolum acre aureum</i>
<i>Eucalyptus resinifera</i>	<i>Seolum acre elegans</i>
<i>Eucalyptus saligna</i>	<i>Seolum albicans</i>
<i>Eucalyptus siderophloia</i>	<i>Seolum brevifolia major</i>
<i>Eucalyptus tereticornis</i>	<i>Seolum glaucum</i>
<i>Euonymus rotundifolius variegatus</i>	<i>Seolum hispanicum</i>
<i>Fraxinus anomala</i>	<i>Seolum spurium splendens</i>
<i>Frangula Purshiana</i>	<i>Skimmia oblata</i>
<i>Gunnera scabra</i>	<i>Tacsonia tomentosa speciosa</i>
<i>Gaultheria procumbens</i>	<i>Taxus elegantissima</i>
<i>Helianthus angustifolius</i>	<i>Taxus fastigiata aurea</i>
<i>Hydrangea, Thos. Hogg</i>	<i>Taxus fastigiata variegata</i>
<i>Ilex diphyrena</i>	<i>Taxus gracilis pendula</i>
<i>Juniperus argentea variegata</i>	<i>Taxus pyramidalis variegata</i>
<i>Juniperus chinensis aurea</i>	<i>Taxus Washingtoniensis</i>
<i>Juniperus pyramidalis</i>	<i>Thuja Verreaniana</i>
<i>Leucojum autumnale</i>	<i>Thuja semper aurea</i>
<i>Leucojum vernum</i>	<i>Tigridea grandiflora</i>
<i>Lonicera Californica</i>	<i>Trollius Europæus</i>
<i>Lilium Canadense rubra</i>	<i>Ulmus purpureus</i>
<i>Lilium Leichtlinii</i>	<i>Viburnum Standishii</i>
<i>Lilium martagon album</i>	<i>Vitus Californiac</i>

Roses.

Antoine Ducher
Boildieu
Captain Christy
Comte de Sereyne
Duke of Connaught
E. Y. Teas
Firebrand
Fisher Holmes
Felix Genero
François Treyve
François Michelin
Gabriel Tournier

General Von Moltke.
John Cranston.
Lord Clyde.
May Quennell.
Mademoiselle Marie Finger.
Miss Baker.
Niphetos.
Red Dragon.
Rosy Morn.
Souvenir de Poitray.
Ditto Madame Hennecarte.
Xavier Olibo.

Pelargonium.

Aurora.
Brilliant.
Corsair.
Duchess of Bedford.
High Admiral.
Kathleen.
Lord of the Isles.

Mabel.
Magnificent.
Prince Leopold.
Rob Roy.
Sappho.
Triomphe de St. Maud.

Tricolor Pelargonium.

Enchantress.
Gilt with Gold.
Lass o'Gowrie.
Mrs. H. Little.
Mrs. Harrison Weir.

Mrs. Mappin.
Peter Grieve.
Princess Alexander.
William Sandy.

Bronze-leaved Pelargonium.

Bronze Queen.
Mrs. Elliot.

Prince Arthur.
W. R. Morris.

Zonal Pelargonium.

Black Dwarf.
Bishop Wood.
Isa Gray.
Mirinda.

The Ghost.
The Shah.
William Margillon.
Veronia.

Chrysanthemum.

Baverley.
Beethoven.
Clarissa.
Exquisite.
Finette.
Garibaldi.
Garnet.

Globe White.
Ossian.
Pio Nono.
Pink Pearl.
Sanguineum.
Splendens.
White Perfection.

Gloxinea.

Boula de Feu.
Charm de Lutece.
Eustace Guilmot.

Mademoiselle Charlotte de la
Tremouille.
William Robinsor.

Achimenes.

Argus.
Celestial.
Cherub.
Excelsior.
Firefly.

Harry Williams.
Loveliness.
Nesida.
Nina.
Stella.

Tuberous-rooted Begonias.

Brilliant.
Dr. Masters.
Dragon.
Emblem.
Gloire de Nancy.
Lemoine.

Lucinda.
Magnet.
Marie Lemoine.
Phyllis.
Salmonea plena.

Apples.

Hall.
Hollandbury.
Irish Buck.
Jerret's Best.
Jonathan.
King Tompkin's Country.
Ladies' Sweet.
Liberty.
Lowell.
Missouri Pippin.
New England Pigeon.
New Town Spitz Affar.

Perfection.
Pitmaston Duchesse.
Pitmaston Russet Nonpareil.
Prince of Pippins.
Reinette Jaune Halive.
Rome Beauty.
Seedless.
Summer Rose.
Watson's Dumpling.
Wooling Favourite.
Wormsley.

Pear.

Doyenne du Comice.
Pitmaston Duchesse.

L' Inconnue.

Apricot.

Dundonald.
Hemskirk.

Oulin's early Peach.
Peach.

Peaches.

American Pound.
Early Silver.

Late French Red.
Princess of Wales.

F. ABBOTT, *Superintendent.*