

ANNUAL REPORT.

The Royal Society of Tasmania, 1913.

Patron :
HIS MAJESTY THE KING.

President :
HIS EXCELLENCY SIR WILLIAM GREY ELLISON-MACARTNEY, P.C.,
K.C.M.G., GOVERNOR OF TASMANIA.

Vice-Presidents :

Council :

Elected 18th March, 1913.

THE HON. G. H. BUTLER, M.R.C.S., L.R.C.P., M.L.C. (<i>Chairman</i>).	FRITZ NOETLING, M.A., Ph. D. E. L. PIESSE, B.Sc., LL.B.
A. H. CLARKE, M.R.C.S., L.R.C.P.	J. S. PURDY, M.D., D.P.H. (<i>resigned July, 1913</i>)
SAMUEL CLEMES (<i>resigned July, 1913</i>)	LEONARD RODWAY.
J. A. JOHNSON, M.A.	GREGORY SPROTT, M.D., C.M.

Elected 11th August, 1913.

PROF. T. THOMSON FLYNN, B.Sc.	J. L. GLASSON, B.A., D.Sc.
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Secretary :

Honorary Acting-Secretary :
E. L. PIESSE.

Honorary Treasurer :
LEONARD RODWAY.

Auditor :
H. W. W. ECHLIN.

Honorary Members:

- David, T. W. Edgeworth, C.M.G., B.A., F.R.S., F.G.S.
Professor of Geology in the University of Sydney.
The University, Sydney.
- Mawson, Douglas. B.E., D.Sc. Lecturer on Mineralogy and
Petrology in the University of Adelaide. The Uni-
versity, Adelaide.
- Shackleton, Sir Ernest H., Kt., C.V.O., F.R.G.S., F.R.A.S.
9 Regent-street, London, S.W., England.
- Spencer, W. Baldwin, C.M.G., M.A., F.R.S. Professor of
Biology in the University of Melbourne. The Uni-
versity, Melbourne.

Ordinary, Life, and Corresponding Members:

"C," Corresponding Member.

"L," Member who has compounded subscriptions for life.

*, Member who has contributed a Paper read before the Society.

Year of
Election.

- | | | |
|------|---|---|
| 1913 | | Adams, A.W. 24 Grosvenor Street, Queen-
borough. |
| 1901 | | Allwork, F., L.S.A. (died 26th April, 1913). |
| 1913 | | Annells, W. C., M.A. Friends' High School,
Commercial Road, New Town. |
| 1912 | | Atkinson, R.N. Sulphur Creek. |
| 1912 | | Bagley, W. A. Wentworth Street, Hobart. |
| 1884 | C | *Bailey, F. Manson, C.M.G., F.L.S. Govern-
ment Botanist, Queensland. |
| 1908 | L | Baker, Henry D. C/o American Consulate,
Hobart. |
| 1887 | | Barclay, David. 143 Hampden Road, Hobart. |
| 1907 | L | Baring, Rev. F. H., M.A., F.R.G.S. Triabunna. |
| 1890 | | *Beattie, J. W. 1 Mount Stuart Road, Hobart. |
| 1901 | C | Benham, W. B., M.A., D.Sc., F.R.S., F.Z.S.
Professor of Biology, University of
Otago. Dunedin, New Zealand. |
| 1903 | | Bennett, W. H. "Ashby," Ross. |
| 1900 | | Bennison, Thomas. 29 Cromwell Street,
Hobart. |
| 1873 | | Bidencope, Joseph. "Bartonvale," Salvator
Rosa Glen, Hobart. |
| 1912 | | Black, R. A. Chief Clerk, Department of
Agriculture. 48 High Street, Queen-
borough. |
| 1909 | | *Blackman, A. E. Franklin. |

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Year of
Election.

- 1913 Bottrill, W. E., LL.D. 7 Elphinstone Road, Hobart.
- 1892 C Bragg, W. H., M.A., F.R.S. Cavendish Professor of Physics in the University of Leeds. University, Leeds.
- 1904 Brain, Rev. Alfred, M.A. (resigned June, 1913).
- 1913 Brammall, T. C., M.A. "Blenheim," Brisbane Street, Hobart.
- 1900 *Brettingham-Moore, G. E. 294 Davey Street, Hobart.
- 1911 Brooks, G. V. Master of Method, Elizabeth Street Practising School, Hobart. Main Road, New Town.
- 1907 Brownell, F. L. "Leura," Main Road, Moonah.
- 1900 *Burbury, F. E. South Esk Street, Trevallyn.
- 1879 Burgess, The Hon. W. H. "Milliara," Mona Street, Hobart.
- 1913 Burton, W. J. P. Organising Teacher of Nature Study in the Education Department. "Matlock Dale," Claremont.
- 1861 Butler, Francis. Garden Crescent, Hobart.
- 1896 Butler, The Hon. G. H., M.R.C.S., L.R.C.P., M.L.C. Chief Secretary of Tasmania. 138 Macquarie Street, Hobart.
- 1912 Butler, H. N., M.B., B.S. 182 Macquarie Street, Hobart.
- 1909 Butler, W. F. D., B.A., M.Sc., LL.B. Bishop Street, New Town.
- 1913 Butters, J. H. Kingston Road, Lower Sandy Bay.
- 1912 Chapman, J. R. Holebrook Place, Hobart.
- 1901 C Chapman, R. W., M.A., B.C.E. Elder Professor of Mathematics and Mechanics in the University of Adelaide. The University, Adelaide.
- 1913 Chepmell, C. H. D. Clerk of the Legislative Council. 23 Swan Street, Hobart.
- 1896 *Clarke, A. H., M.R.C.S., L.R.C.P. 175 Macquarie Street, Hobart.
- 1887 Clemes, Samuel. Principal of Leslie House School. Clare Street, New Town.
- 1910 Clemes, W. H. Leslie House School, Argyle Street, New Town.
- 1877 *Crouch, E. J., M.R.C.S., L.S.A. 184 Macquarie Street, Hobart.

Year of
Election.

- 1912 Crowther, W. L., M.B., B.S. "Coreen," 147 Macquarie Street, Hobart.
- 1884 Davies, The Hon. C. E., M.L.C. "Lyndhurst," New Town Road, New Town.
- 1884 Davies, Sir J. G., M.H.A. (died 12th November, 1913).
- 1908 Dechaineux, Lucien. Principal of Technical School, Hobart. Moonah.
- 1903 Delany, Most Rev. Patrick. Archbishop of Hobart. 99 Barrack Street, Hobart.
- 1892 C Dendy, A., D.Sc., F.R.S., F.L.S. Professor of Zoology in the University of London (King's College). "Vale Lodge," Hampstead, London, N.W.
- 1911 Dickinson, S.R., M.A. Principal of Leslie House School. Leslie House School, Argyle Street, New Town.
- 1861 Dobson, The Hon. Henry. Elboden Street, Hobart.
- 1909 *Dove, H. Stuart. West Devonport.
- 1911 Dunbabin, Thomas, M.A. 22 Lansdowne Crescent, Hobart.
- 1908 Ernst-Carroll, Frederick J., M.Sc., F.R.G.S., F.G.S. 23 Bel-Air, Neuchatel, Switzerland.
- 1913 Erwin, H. D., B.A. Christ's College, Macquarie Street, Hobart.
- 1909 Fereday, Mrs. R. W. Holebrook Place, Hobart.
- 1902 Finlay, W. A. 11 Secheron Road, Hobart.
- 1909 *Flynn, T. Thomson, B.Sc. Ralston Professor of Biology in the University of Tasmania. D'Arcy Street, Hobart.
- 1890 L Foster, H. D. 137 Hampden Road, Hobart.
- 1905 L Foster, J. D. "Fairfield," Epping.
- 1913 Fowler, T. W., M.C.E. Engineer-in-Chief of Tasmania. Public Works Department, Davey Street, Hobart.
- 1908 *Giblin, L. F., B.A., M.H.A. 326 Macquarie Street, Hobart, and "Cobbler's End," Cambridge.
- 1896 Giblin, W. W., M.R.C.S., L.R.C.P. 142 Macquarie Street, Hobart.
- 1911 Gibson, G. H., M.B., C.M. 177 Macquarie Street, Hobart.

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*Glasson, J. L., B.A., D.Sc. Lecturer in Physics
in the University of Tasmania. "Wood-
bourne," Davey Street, Hobart.

1907

Gould, H. T. 324 Murray Street, Hobart.

1907

Gould, Robert. Longford.

1911

Gower, E. I., B.A. Principal of Friends' High
School. Commercial Road, New Town.

1905 L

Grant, C. W. "High Peak," Huon Road.

1892

*Green, A. O. Bellerive.

1913

Green, J. W. State High School, Elizabeth
Street, Hobart.

1911

*Hall, Robert, C.M.Z.S. Bellerive.

1901 C

*Hall, T. S., M.A., D.Sc. Lecturer in Biology
in the University of Melbourne. The
University, Melbourne.

1913

Hardy, G. H. Hurlstone. Assistant-Curator of
the Tasmanian Museum. The Museum,
Argyle Street, Hobart.

1913

Harrison, A. D. "Rosevale," Hayes.

1898

Harrison, M. W. Glenorchy.

1907

Harrisson, E. P. Bellerive.

1893

Harvey, W. A., M.B. 154 Macquarie Street,
Hobart.

1902 C

Haswell, William, M.A., D.Sc., F.R.S., F.L.S.
Challis Professor of Biology in the Uni-
versity of Sydney. The University,
Sydney.

1913

Hawson, Edward. "Remine," 174 Argyle
Street, Hobart.

1913

Hills, Loftus, M.Sc. Assistant Government
Geologist. Geological Survey, Launce-
ston.

1908

Hogg, G. H., M.D., C.M. 37 Brisbane Street,
Launceston.

1892

Horne, William. 16 St. George's Terrace,
Hobart.

1909

*Hutchison, H. R. 1 Barrack Street, Hobart.

1913

Ife, G. W. R., LL.B. Summerhill Road, Ho-
bart.

1912

Inglis, C. J. Holebrook Place, Hobart.

1898

*Ireland, E. W. J., M.B., C.M. 160 Elizabeth
Street, Hobart.

1887 C

Jack, R. L., F.G.S., F.R.G.S.

1906

*Johnson, J. A., M.A. Principal of the Philip
Smith Training College, Hobart.
"Wharepuke," Argyle Street, New Town.

Year of Election.		
1873		*Johnston, R.M., I.S.O., F.S.S. Government Statistician. Tasmanian Club, Macquarie Street, Hobart.
1913		Johnstone, G. M., LL.M. Augusta Road, New Town.
1913		Jones, W. Ashton. New Town.
1911		Keene, E. H. D., M.A. "Tantallon," Tarleton.
1910		Kermode, R. C. "Mona Vale," Ross.
1905		Kerr, George. 165 Campbell Street, Hobart.
1913		Knight, J. C. E. "Windermere," Claremont.
1873		*Legge, Col. W. V., R.A. (R.). "Cullenswood House," Cullenswood.
1887		Lewis, Sir Neil Elliott, K.C.M.G., M.A., B.C.L., LL.B., M.H.A. "Werndee," Augusta Road, New Town.
1902		Lewis, R. C. Moore Street, New Town.
1912		Lindon, L. H., M.A. Warden of Christ's College, Hobart. "The Lodge," Park Street, Hobart.
1900		Lines, D. H. E., M.B., Ch.B. Archer Street, New Town.
1875	C	Liversidge, Professor Archibald, M.A., LL.D., A.R.S.M., F.R.S., F.I.C., F.C.S., F.G.S., F.R.G.S. "Fieldhead," Coombe Warren, Kingston, Surrey, England.
1913		Lord, Clive E. "Lauramont," High Street, Queenborough.
1912		Lovell, S. O. Queenborough.
1912		McAlister, Miss M. K. The University, Hobart.
1893		*McAulay, Alexander, M.A. Professor of Mathematics in the University of Tasmania. The University, Hobart.
1884	L	*McClymont, J. R., M.A. Grosvenor Street, Queenborough.
1911		McCoy, W. T., B.A. Director of Education. 20 Adelaide Street, Hobart.
1908		McElroy, J. A. Principal of Franklin House School. 179 Davey Street, Hobart.
1870		Macfarlane, The Hon. James. "Newlands," Augusta Road, New Town.
1913		Mackay, J. Hilton, M.C.E. Professor of Engineering in the University of Tasmania. The University, Hobart.

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Year of
Election.

- 1901 MacLeod, P. J., B.A. Lecturer in Chemistry in the University of Tasmania. Technical School, Hobart.
- 1902 C *Maiden, J. H., F.L.S., F.C.S. Director of Botanic Gardens, Sydney, and Government Botanist, New South Wales. Botanic Gardens, Sydney.
- 1912 Maskell, J. W., M.R.C.S., L.R.C.P. 152 Macquarie Street, Hobart.
- 1907 Mason, Michael. 4 Mount Stuart Road, Hobart.
- 1913 Masterman, C. E. Derwent House, Lower Sandy Bay.
- 1913 Mather, J. F. 1 Mount Stuart Road, Hobart.
- 1895 *May, W. L. Sandford.
- 1909 Millen, J. D. Mount Bischoff Mine. Waratah.
- 1913 Miller, E. Morris, M.A. Lecturer in Philosophy and Economics in the University of Tasmania. 38 Church Street, Hobart.
- 1907 Miller, Lindsay S., M.B., Ch.B. 156 Macquarie Street, Hobart.
- 1894 L Mitchell, J. G. "Ellesmere," Jericho.
- 1913 Mitchell, P. H., B.A. Headmaster of the State High School, Hobart. Ashfield Street, Queenborough.
- 1911 Montgomery, R. B. Park Street, New Town.
- 1911 Moore-Robinson, J., F.R.G.S. Lambert Avenue, Queenborough.
- 1913 Moore-Robinson, Mrs. J. Lambert Avenue, Queenborough.
- 1882 Nicholas, G. C. "Cawood," Ouse.
- 1910 Nicholls, H. Minchin. Vegetable Pathologist and Entomologist in Department of Agriculture. Macquarie Street, Hobart.
- 1907 *Noetling, Fritz, M.A., Ph.D. "Chatsworth," New Norfolk.
- 1913 Officer, A. C. "Hallgreen," New Norfolk.
- 1899 Parker, A. C. "Charlton," Augusta Road, New Town.
- 1908 Parsons, Miss S. R. 190 Davey Street, Hobart.
- 1909 Pearce, E. H. 103 Hampden Road, Hobart.
- 1909 Pedder, Alfred. Stoke Street, New Town.
- 1902 *Piesse, E. L., B.Sc., LL.B. "Neika," Bay Road, New Town.

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- 1913 Piesse, L. F. "East Bank," High Street,
Queenborough.
- 1910 Pillinger, James. Railway Department,
Hobart.
- 1912 Pollard, Rev. Ambrose. "Roseleigh," Davey
Street, Hobart.
- 1908 Pratt, A. W. Courtney. 11 Swan Street,
Hobart.
- 1910 Purdy, J. S., M.D., D.P.H. City Health
Department, Sydney.
- 1911 Reid-Bell, W. Burnie.
- 1913 Richmond, R. L. "Gagebrook," Old Beach.
- 1904 *Ritz, H. B., M.A. Lecturer in Modern Lan-
guages in the University of Tasmania.
40 Lochner Street, Hobart.
- 1864 Roberts, H. L. "Beaumaris," Montpelier
Road, Hobart.
- 1884 *Rodway, Leonard. High Street, Queenbor-
ough.
- 1913 Ross, Hector. Sheriff of Tasmania. Elphin-
stone Road, Hobart.
- 1896 Scott, R. G., M.B., Ch.M. 172 Macquarie
Street, Hobart.
- 1913 Seager, P. R., LL.B. Lindisfarne.
- 1892 C *Shirley, John, D.Sc. Inspector of Schools,
Queensland. "Colarmie," Brunswick
Street, New Farm, Brisbane.
- 1901 Shoobridge, Canon G. W. 3 Molle Street,
Hobart.
- 1873 Shoobridge, W. E. "Bushy Park," Glenora.
- 1909 Simmons, M. W. A.M.P. Buildings, Eliza-
beth Street, Hobart.
- 1913 Simpson, T. C. 1 Fitzroy Place, Hobart.
- 1875 *Simson, Augustus. 49 High Street, Launces-
ton.
- 1901 C Smith, R. Greig-, D.Sc. Linnean Hall, Eli-
zabeth Bay, Sydney.
- 1913 Smithies, John. Lindisfarne.
- 1913 Sorell, Mrs. "Thornycroft," 313 Macquarie
Street, Hobart.
- 1912 Spencer, H. J. Boa Vista Road, New Town.
- 1896 L *Sprott, Gregory, M.D., C.M. 134 Macquarie
Street, Hobart.
- 1911 Stephens, A. A., B.A. Lindisfarne.

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Year of
Election.

- 1913 Stephens, R. C., B.A. State High School,
Elizabeth Street, Hobart.
- 1858 *Stephens, Thomas, M.A., F.G.S. (died 25th
November, 1913).
- 1896 L Sticht, Robert, B.Sc., E.M. Mount Lyell
Mine, Queenstown.
- 1913 Susman, Maurice. 88 Murray Street, Hobart.
- 1912 Tabart, T. A., junior. New Town Road, New
Town.
- 1907 Tarleton, J. W. 108 High Street, Queen-
borough.
- 1887 *Taylor, A. J. Librarian of the Tasmanian
Public Library. 28 D Arcy Street, Ho-
bart.
- 1892 C *Thomsen, G. M., F.L.S. Dunedin, New Zea-
land.
- 1913 Tregear, E. C. Cross Street, New Town.
- 1911 Tucker, A. R. Bellerive.
- 1896 *Twelvetrees, W. H., F.G.S. Government
Geologist. Geological Survey, Launce-
ton.
- 1889 Walch, Charles E. 97 Davey Street, Hobart.
- 1901 C Wall, Arnold, M.A. Professor of English Lan-
guage and Literature in Canterbury
College. Christchurch, New Zealand.
- 1913 Wardman, John. Superintendent of the
Botanical Gardens. Botanical Gardens,
Hobart.
- 1896 Watchorn, A. D. 6 Mona Street, Hobart.
- 1912 Waterhouse, L. L., B.E. Assistant Govern-
ment Geologist. Geological Survey,
Launceston.
- 1913 Waterworth, Newham. Lindisfarne.
- 1902 Watson, Horace. 55 High Street, Queenbor-
ough.
- 1913 Wayn, Miss Lucy. "Fairfield," 246 Camp-
bell Street, Hobart.
- 1865 Webster, A. G. Holebrook Place, Hobart.
- 1907 Webster, C. E. Kingston Road, Lower Sandy
Bay.
- 1884 *Weymouth, W. A. 139 Goulburn Street, Ho-
bart.
- 1912 *White, Arthur. "Broomhill," Mangalore.
- 1901 Wise, H. J. 4 Colville Street, Hobart.

Year of Election.		
1903		Wolfhagen, Waldemar. Augusta Road, New Town.
1913		Wood, Gordon. State High School, Elizabeth Street, Hobart.
1912		Woods, E. A. The University, Hobart.
1897	C	Woodward, B. H., F.G.S. Director of the Western Australian Museum and Art Gallery. Perth, Western Australia.
1913		Wright, Walter. Headmaster of Central State School. Liverpool Street, Hobart.

Members are asked to inform the Secretary of any change of address or other necessary correction.

ANNUAL REPORT.

In accordance with Rule 39, the Council present a Report on the proceedings of the Society during the year 1913.

The Council and Officers.

At the Annual General Meeting, held on 18th March, the following were elected members of the Council for the year:—The Hon. G. H. Butler, Dr. A. H. Clarke, Mr. Samuel Clemes, Mr. J. A. Johnson, M.A., Dr. Fritz Noetling, Mr. E. L. Piesse, B.Sc., LL.B., Dr. J. S. Purdy, Mr. Leonard Rodway, and Dr. Gregory Sprott. Mr. Clemes and Dr. Purdy sent in their resignations early in July, and at the August meeting Professor T. Thomson Flynn, B.Sc., and J. L. Glasson, B.A., D.Sc., were elected in their places.

Dr. Butler was elected Chairman of the Council, and was given leave of absence during a visit to Europe from April to November. Dr. A. H. Clarke was elected Acting Chairman during Dr. Butler's absence.

The term of Mr. Robert Hall's engagement as Secretary expired in March, and, as the Council wished that the proportion of the Society's income spent in salaries should be diminished, Mr. E. L. Piesse consented to act as Honorary Secretary, and Mr. J. Moore Robinson as Honorary Librarian.

An address was presented on behalf of the Society to Sir William Ellison-Macartney, Governor of Tasmania, on his arrival in Tasmania in June, and His Excellency was pleased to accept the Presidency of the Society.

The Council elected Drs. Clarke, Noetling, and Sprott, and Messrs. Clemes, Johnson, and Rodway, to be Trustees

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of the Museum during the current year. Mr. Clemes's seat became vacant when he resigned from the Council, and Mr. Piesse was elected in his place.

The Council held eight Ordinary Meetings and one Special Meeting in the period from the Annual Meeting to the end of the year. The attendance of each member, and the number of meetings held during his membership, was as follows:—Dr. Butler, absent on leave; Dr. Clarke, 8 (9); Mr. Clemes, 2 (3); Professor Flynn, 2 (3); Dr. Glasson, 3 (3); Mr. Johnson, 7 (9); Dr. Noetling, 8 (9); Mr. Piesse, 9 (9); Dr. Purdy, 2 (3); Mr. Rodway, 9 (9); Dr. Sprott, 3 (9).

Meetings of the Society.

Eight Monthly General Meetings, and one Special General Meeting (immediately following the Annual Meeting) of the Society, were held during the year. Sixteen papers were read during the session.

Members.

During the year 43 candidates were elected to the Society, of whom 41 accepted the obligations of membership. The Society lost 13 members through death, resignation, or change of residence. The number of ordinary members at the end of the year was 157, the largest for over fifty years. There were also 9 members who have compounded their subscriptions for life, 4 honorary members, and 15 corresponding members.

The Council has to record the deaths of several of the oldest members of the Society, including Mr. Russell Young and Mr. Thomas Stephens, who were members of the Council for many years. Obituary notices of the deceased members will be found at the end of the Report.

Papers and Proceedings.

An arrangement was made for a better quality of paper for the "Papers and Proceedings" for 1913, and improvements have been made in the printing. The increase in the Society's membership and the additional exchanges which have been arranged have necessitated a larger edition of the "Papers and Proceedings," and the Council ordered 450 copies for 1913, in place of 350 hitherto printed. The Council is anxious to introduce further improvements in the format of the Society's publications, but it has resolved that for the present the needs of the library are more urgent.

In the "Papers and Proceedings" for 1912, there were published the first parts of a complete revision of the Bryophyta of Tasmania, by Mr. L. Rodway. A further part of this paper, completing the Mosses, is published in the volume for 1913. Mr. Rodway has been at the expense of having some additional copies of his paper printed, and has presented them to the Society for sale. The various parts have been bound together, paged consecutively, and issued as a separate volume.*

The Society is indebted to the Chairman of the Council for arranging for the Society to obtain for the "Papers and Proceedings," at a small cost, copies of two papers, by Mr. E. L. Piesse, on Proportional Representation, which were issued also as State publications by the Electoral Department.

A map of Ben Lomond, by Colonel Legge, an old and much esteemed member of the Society, is published with the "Papers and Proceedings" for 1913, in illustration of a paper in which Messrs. Giblin, Piesse, and Hutchison gave an account of their determination of the height of Legge Peak, now found to be the highest summit in Tasmania. The Council was anxious that Colonel Legge's map should be reproduced in the best style, and arrangements were made, through the kind offices of the Agent-General for Tasmania, for the map to be printed at the Ordnance Survey, Southampton. Before the printing of the map, the Tourist Associations in Hobart and Launceston agreed to purchase 100 copies each, and the expense of the map has thus been much lessened.

A catalogue of Tasmanian newspapers, commencing in 1810, is in preparation, and it is hoped to publish it in the "Papers and Proceedings" for 1914.

The Library.

The Council found that the Society's Library had long overgrown the accommodation provided for it. Not only was there no shelving for many of the books which were in the library-room, but many hundreds of volumes were in other rooms in the Museum, in the basement, and in cupboards. A rearrangement of the books, and the removal of many duplicates to a storeroom, gave some additional space; and the Council also installed additional shelving, which will accommodate about 1,200 volumes. It is still necessary, however, to keep many books in

* Copies are not available for presentation.

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other rooms, in addition to the Medical Library, which has for many years been separated from the general Library. The Council records with pleasure its appreciation of the help given by Mr. J. Arnold, the Caretaker of the Museum, in the rearrangement of the Library.

The Library has twice been catalogued, in 1856 and 1885. The last Catalogue, which has many defects in classification and arrangement, has become almost useless, for the Library has twice been rearranged, and no convenient record of additions has been kept. The preparation of a new subject Catalogue will perhaps prove too great a task; but it is hoped to prepare a Catalogue of the titles of the periodicals and an index of authors' names. As a preliminary to a new Catalogue, the Honorary Secretary, with the assistance of the Honorary Librarian and other members, undertook the preparation of a list of the contents of the Library, which at the same time was provisionally rearranged in accordance with the Brussels system of classification. This work has required the closing of the Library for some months, and it may be necessary during the coming year for the Council to ask members to submit to some further inconvenience while the labelling of the books and the author-index are being completed.

As a further aid to the use of the Library, the Council resolved to purchase, so far as the Society's means allowed, the Royal Society Catalogue of Scientific Papers, 1800-1900, and the International Catalogue of Scientific Literature. The Government of Tasmania, alone among the Governments of Australia, has never subscribed to the International Catalogue, and there is no set of it in Tasmania. The income of the Morton Allport Memorial Fund has not been spent in full for several years, and the Council resolved that the accumulation of income, and future income, be spent, in the main, in the purchase of these Catalogues. The income, which is about £10 a year, will not provide for purchasing more than half of the annual volumes of the International Catalogue, to say nothing of past volumes and of the 1800-1900 Catalogue; but the Council is hopeful that if the membership continues to increase it may be possible to devote some of the Society's ordinary funds to this purpose. The volumes purchased during the year were—the Royal Society Catalogue of Scientific Papers (1800-1900), Subject Index, vols. I., II., and III. (Pt. 1); International Catalogue, the first eleven issues for General Biology, Geology, and Zoology.

The Council found, however, that the most urgent

need of the Library was the binding of great numbers of periodicals and other publications, which have been presented to the Society in paper-covered parts. In the early days of the Society it was possible to bind most of the presentations; but during the last 30 years many series have been left unbound. During the year the Council was able to bind about 200 volumes, at a cost of £34 6s. 9d.; but to overtake the arrears of binding, of only the publications in most frequent use, an additional expenditure of not less than £200 will be necessary.

The expenditure on the Library during the year was—from the Morton Allport Memorial Fund, £32 11s. 5d.; from the Society's ordinary income, about £70 (including postages); making a total expenditure of over £100.

The Council arranged for several new exchanges during the year, and many gaps in the series of publications in the Library were filled by presentations from Societies and Institutions. A list of the Institutions, etc. (numbering 148), to which the Society's publications are presented, is appended to this Report.

A complete list of the Society's publications, with the prices at which they can be purchased by the public, was prepared and circulated early in the year. The publication of this list has resulted in some increase in the receipts from sales.

The Council takes this opportunity to remind members that the collection of books on the history of Tasmania in the Society's Library, although extensive already, could be added to considerably. The Council will welcome presentations not only of books, but of pamphlets and documents, which may be of little interest now, but may become of great value in the future. Not the least valuable of the books in the Library are some books and pamphlets presented in the early years of the Society, which, though common then, have now become both rare and interesting.

The Council has authorised the purchase of a safe or chest for the custody of manuscripts and rare books belonging to the Society.

The Council thinks it is very desirable that, when the cataloguing of the library has been completed, an attendant acquainted with its contents should be present whenever the library-room is open. If such supervision can be provided, the Council sees no reason why the public should not be admitted to the room. The library was originally intended to be a public one, and there are probably many outside the Society who would be glad to use the books.

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The privilege of borrowing would, of course, still be confined to members.

The number of volumes and pamphlets (excluding duplicates) in the library is about 9,000.

Psychology and Education Section.

Seven Meetings of the Psychology and Education Section were held during the year, with an average attendance of ten members.

Mr. L. H. Lindon was elected Chairman of the Section, and Mr. J. A. Johnson Secretary. The members of the Section were Messrs. W. C. Annells, T. C. Brammall, G. V. Brooks, S. Clemes, W. Clemes, L. Dechaineux, S. R. Dickenson, E. I. Gower, J. A. Johnson, L. H. Lindon, S. O. Lovell, P. H. Mitchell, J. A. McElroy, A. A. Stephens, R. C. Stephens, W. Wright, Gordon Wood.

The subjects of study centred round the recent developments in Experimental Pedagogy. The following papers were read and discussed:—

1. "The Psychological Aspect of Education." G. V. Brooks and J. A. McElroy.
2. "The Philosophical Aspect of Education." S. O. Lovell.
3. "Experimental Pedagogy" (read before the Society on 11th August). J. A. Johnson.
4. "Experimental Work in Sensation." A. A. Stephens.
5. "Experimental Results in Attention." W. Wright.
6. "Experimental Aspects of Perception and Apperception." P. H. Mitchell.
7. "Experiments in Memory." L. H. Lindon.

Miscellaneous.

During the year an application for an extension of the Museum buildings was made to the Government by the Trustees of the Museum. The Council concurred in this application, and pointed out that the present dispersion of the Library in various parts of the Museum, due to insufficient space in the Society's room, was as great a disadvantage to the Society as it was an inconvenience to the Museum.

The Seventieth Anniversary of the Society occurred during the year, and was celebrated at a successful Meeting, at which an account was read of the foundation and early work of the Society, and many books, documents, and

portraits, illustrating the early years of the Society, were shown.

The collection of portraits in the Society's room was of great interest in connection with the Anniversary; but the Anniversary also served to remind the Council of the number of early members who are not thus commemorated. For most of the portraits now hanging in the room the Society is indebted to members; and it is hoped that many of the gaps may still be filled.

The Council is pleased to record an increase in the scientific staff of the University of Tasmania. An additional grant of £1,000 per annum, made by the Parliament of Tasmania in 1912, has enabled a separate Department of Physics to be established; and a capital sum of £2,000 included in the appropriations for 1913-14 will provide for additional scientific departments. The strengthening of the University will add to the scientific workers in the Society, and widen the scope of its work; but at the same time it imposes obligations on the Society, of which the Council is not unmindful, to publish researches made in Tasmania, and to provide a more adequate library of scientific periodicals.

Disquis.

GENERAL ACCOUNT.

RECEIPTS.		EXPENDITURE.	
1913.	£ s. d.	1913.	£ s. d.
Subscriptions:—		Salaries—	
156 Members at £1/1/	£163 16 0	Secretary (3 months)	£12 10 0
Arrears	1 1 0	Attendant	6 0 0
Special Subscriptions		Papers and Proceedings—	
Subscription of British Medical Association for		1912—Printing, etc.	47 9 10
use of Room and Medical Library	10 0 0	Postage	3 0 2
Sales of "Papers and Proceedings"	6 15 10	1913—Printing	14 3 9
Interest on Savings Bank Account	0 10 8	Library—	
Payments for use of Society's Room (less expenses		Books and Magazines	7 3 6
of attendance)	3 15 0	Binding	34 6 9
		Gifts, refund to M.A.M. Fund ..	3 17 0
		Life, Insurance (£2,000)	4 16 0
		Insurance	5 2 6
		Shelving	8 16 3
		Sundries	
		Expenses of Meetings—	
		Notices and Advertising	7 4 0
		Fuel and Light	3 9 6
		Lantern	2 8 6
		Miscellaneous—	
		Auditor	1 1 0
		Stamps	12 10 7
		Stationery	6 18 10
		Bank Charge	0 10 0
		Sundries	11 10 11
		Balance	192 13 1
			6 7 5
			£199 0 6

1913—Credit Balance from above	£ s. d. 6 7 5
	<hr/>
	£6 7 5

1913—January 1, Debit Balance	£ s. d. 5 9 2
December 31, Credit Balance to 1914 . . .	0 18 3
	<hr/>
	£6 7 5

MORTON ALLPORT MEMORIAL FUND ACCOUNT.*

1913.	£ s. d.	1913.	£ s. d.
Balance from 1912	24 0 1	International Catalogue of Scientific Literature—	
Interest received from Perpetual		first 11 issues of Zoology, General Biology,	29 11 11
Trustees Co.—5 per cent. on £200		and Geology	
Cascade Brewery Co. Debentures £10 0 0		Royal Society Catalogue of Scientific Papers, 1800—	2 19 6
Less Trustee Co.'s Commission . . . 0 5 0	9 15 0	1900—Subject Index, Vols. I., II., III. Pt. 1.	10 1 2
	5 0 6	Balance to 1914	
Income Tax repaid by Commissioner of Taxes..	3 17 0		
Refund from General Account of Expenditure			
on Binding, 1912	£42 12 7		

*£200 was raised by public subscription in 1878 to establish a Memorial of the late Morton Allport. The Fund is invested in the name of the Perpetual Trustees, Executors and Agency Co. of Tasmania Ltd., and the income is used for the purchase of books for the Library of the Society.

I have this day examined the Books and Vouchers of the Royal Society of Tasmania for the year 1913, and found them correct and in accordance with these Accounts.

H. W. W. ECHLIN,
Auditor.

16th January, 1914.

L. RODWAY,
Honorary Treasurer.

1913.

Obituary Notices.

FRANK ALLWORK, L.S.A., 1857-1913.

Dr. Allwork came to Tasmania in 1900, and settled at New Norfolk. He was elected to the Society in 1901, and he became a member of the Medical Section. Dr. Allwork was for several years the Chairman of the Official Visitors to the Hospital for Insane at New Norfolk. He was a prominent Freemason, and an active member of the Church of England.

THE REVEREND GEORGE CLARKE, 1823-1913.

The Reverend George Clarke was born at Parramatta on 29th June, 1823. His father, George Clarke, and mother had arrived at Hobart in September, 1822, in the ship "Heroine," in which Henry Hopkins, Robert Mather, and other well-known colonists were also passengers. From Hobart Mr. and Mrs. Clarke went on to New South Wales, and in 1824 to New Zealand, where they settled as missionaries at the Bay of Islands, in New Zealand. In 1832 George Clarke, junior, was sent to Hobart, and for some time he was a pupil at Mr. R. W. Giblin's school at "Summerhome," Mr. Clarke's future home, in the part of New Town now called Moonah. He returned to New Zealand in 1836, and for a time was a pupil of the Rev. W. Williams, afterwards Bishop of Waiapu, with whom he travelled among Maori tribes that had seldom been visited. In 1840 his father was appointed Chief Protector of the Aborigines under the newly-established Government of New Zealand, and in January, 1841, just after the Government establishments had been removed from Bay of Islands to Auckland, George Clarke, junior, became a clerk in the Native Department of the Civil Service of New Zealand. Mr. Clarke had already determined to become a minister of the Christian Church when opportunity came, but for several years he gave himself to the service of the Government in its relations with the Maoris. His knowledge of the Maori language and customs was of the greatest value to the Government, and in 1842 he was selected as interpreter at the first criminal sittings of the Supreme Court of New Zealand. The case was the trial of a Maori named Maketu, for murder of a white woman and her children, and the greatest care was necessary to make the Maoris understand the trial. Mr. Clarke's conduct in the trial won the confidence of the Government, as well as of the Maoris; and when, later in

the same year, a Commissioner came from England to look into the titles of the New Zealand Company, to land they had acquired from the Maoris, Mr. Clarke was chosen to accompany him as the medium of communication between the Maoris and the Court, first as interpreter and afterwards as Maori advocate. Mr. Clarke was also made protector of the natives through all the territory claimed by the company. In these capacities Mr. Clarke accompanied the Commissioner in his inquiries, first at Wellington, a settlement formed by the company before the British annexation of New Zealand in 1840, and afterwards at Wanganui, Taranaki, and other districts, and he was able to give much assistance to the Maoris in resisting the claims of the company. In 1844 Mr. Clarke was sent to Otago, to assist in the purchase of a large block of land for the Scotch settlement that was then projected. Mr. Clarke acted for the natives, and the purchase of over 400,000 acres in the vicinity of what is now Dunedin was arranged. Mr. Clarke, in his *Notes on Early Life in New Zealand* (Hobart, 1903), from which this account of his life in New Zealand is taken, remarks with pride that no dispute has ever arisen from this purchase. From Otago Mr. Clarke returned to Auckland. The first Maori War, against Heke, a chief of the Bay of Islands, broke out about this time, and during the war Mr. Clarke took a prominent part in negotiations between the Government and friendly chiefs, and he assisted in bringing the war to an end.*

In 1846, much against the advice of Sir George Grey, the Governor of New Zealand, Mr. Clarke resigned from the service of the Government, so that he might qualify himself as a Christian minister. From New Zealand he came to Hobart, at the invitation of his father's old friend, Henry Hopkins; and early in 1847 he went to London and entered New College. In 1851 Mr. Clarke was ordained in the Congregational Church, and at once returned to Hobart, where he accepted a call to the pastorate of the Collins-street Congregational Church. Of Mr. Clarke's ministry at this church, and at the new and larger church soon built in Davey-street to replace it, some account is given by Mr. Charles E. Walch in an obituary notice in the *Congregational Year Book of Tasmania* for 1913. "How effective that ministry was," says Mr. Walch, "was evidenced by the large congregations which filled the church.

* Much of Mr. Clarke's correspondence during his life in New Zealand, including reports on the war, is in the Hocken Library at Dunedin.

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"But it was not so much the numbers that testified to the ability and power of the preacher and the mark he had made in the community, as the attraction it proved to the more thoughtful and earnest, especially to young men and women. To them the preaching of Mr. Clarke most strongly appealed; and who that heard him can ever forget his New Year's sermons to the young, so winning and so wise; nor the privilege it was to attend his expository Bible classes? Many have been the occasions on which Mr. Clarke has been selected to preach special sermons, and never has he failed to justify such selection. Notably was this the case when, at the request of the Australasian Association for the Advancement of Science, he preached before the members the annual sermon, taking for the subject of his discourse, 'From Man to Nature, and from Man to God.'" For 52 years Mr. Clarke remained the pastor of his church.

Honoured by all, and greatly beloved by those who knew him best, Mr. Clarke's influence extended throughout the community. Of his work outside his church, the most noteworthy, perhaps, was in the Council of Education and in the University of Tasmania, into which the Council of Education was enlarged in 1890. Mr. Clarke was the first Vice-Chancellor of the University, and in 1898 he succeeded Sir Lambert Dobson as Chancellor. Until his retirement in 1907, Mr. Clarke's venerable figure was to be seen at Commemoration, and, in spite of his great age, he delivered each year a Commemoration address. "The value of his services to the cause of education and to this University is indeed great," said his successor in the Address on Commemoration Day, 1913. "and only those who try to follow in his footsteps, and emulate his splendid example, can justly appreciate the loss that we have sustained. In sadness we mourn for him, but we rejoice to know that, crowned with the majesty of years, he passed into the long silence, loved and revered by those for whom he laboured."

Mr. Clarke was elected to the Society in 1852. He was one of the many members who withdrew during the depression which followed the prosperity of the Gold Diggings in Victoria. He was again elected in 1884, and remained a member until 1908. He contributed a biographical note to the volume of papers by the late James Backhouse Walker on the history of Tasmania, published by the Society in 1903 under the title "Early Tasmania."

Mr. Clarke married a daughter of Mr. Henry Hopkins.

He left a family of four daughters and two sons, of whom Dr. Arthur Hopkins Clarke is a member of the Council of the Society, and during 1913 has been its Acting Chairman.

SIR JOHN GEORGE DAVIES, K.C.M.G., M.H.A., 1846-1913.

Sir George Davies was a son of Mr. John Davies, M.H.A., the founder of the Hobart "Mercury," and for many years he was connected with the management of that paper. He was a member of the House of Assembly from 1884 until his death, and from 1903 to 1912 he was Speaker. Sir George was prominent in municipal affairs, and he was Mayor of Hobart for several years. Few men have taken as active and varied a part in public life, and in private life his genial bonhomie won him a wide circle of friends. He was elected to the Society in 1884, and he remained a member until his death.

THOMAS STEPHENS, M.A., F.G.S., 1830-1913.

Mr. Thomas Stephens was the second son of the Rev. William Stephens, B.A., vicar of Levens, Westmoreland, England, and was born at Levens in 1830. He received his education at Marlborough College, proceeding thence to Oxford in 1850. Here he entered first at Queen's College, where his elder brother, William John Stephens, for many years Professor of Geology and Palæontology in the University of Sydney, was Fellow and Tutor; but he subsequently obtained a scholarship at Magdalen-hall, now Hertford College. In 1854 he took his B.A. degree, and ten years later received that of M.A. In 1855 Mr. Stephens emigrated to Victoria, intending to follow pastoral pursuits, but in 1856 he came to Tasmania. He was subwarden of Christ's College, Bishopsbourne, for a short time before it was closed early in 1857. Later in the same year he accepted the appointment of Inspector of Schools under the Northern Board of Education. On the amalgamation of the Northern and Southern Boards in 1863 he was appointed Inspector of Schools for Tasmania. While occupying this position, Mr. Stephens had a large and important share in the organisation of the system of primary education, and he was the first to introduce a standard of instruction for the schools, and a scheme of classification for teachers. On the passing of the Education Act in 1885, which placed the Department under the direct control of a Minister of the Crown, the offices of Chief Inspector and Secretary were amalgamated, and Mr. Stephens was appointed permanent head, with the title of

1913.

Director of Education.† Mr. Stephens retained this office until his retirement in 1894.

The *Educational Record* of 15th December, 1913, in an official notice of his work, says:—"The first body of the regulations issued under the Department was the work of his hands, and proved to be an admirable foundation for the larger superstructure which the advancement of the State and the consequent development of the Department have called for. Mr. Stephens administered the regulations with inflexible fidelity, being immovably firm in the maintenance of discipline, showing at the same time a sympathetic consideration for the teachers under his charge, due in part to his fine qualities as an educated gentleman and in part to the long and intimate acquaintance he had had with the work of teachers in all parts of the island."

Mr. Stephens's duties as Inspector of Schools took him into all the settled districts of Tasmania, and he acquired an intimate knowledge of the geology and physical features of the island. In 1861-2 he was an active member of the Northern Board of Works, under whose direction the principal lines of road through the then little-known north-eastern and north-western districts were planned and commenced. His interest in geology lasted through his whole life. He was a fellow of the Geological Society of London, and his geological writings extend over nearly fifty years.

Mr. Stephens's interest in education was not limited to the Education Department. When a scheme for re-establishing Christ's College was under consideration by the Supreme Court in 1876, he suggested the setting aside of surplus revenue for a building fund. The building fund thus established amounted in 1912 to about £20,000, and rendered possible the present re-establishment of the College. In 1877 the Anglican Synod elected Mr. Stephens a member of the first Council of the College. In 1882 he was able to render great assistance to the College in resisting a proposal, brought before Parliament under a misconception of the origin of the College, to appropriate its funds for a Government institution. In 1891 he was elected President of the Council, and he retained this office until a few months before his retirement from the Council in 1911. The scheme for the reorganisation of the College approved by the Supreme Court in 1912 was largely due to Mr. Stephens, although he was opposed to some of its

† The foregoing particulars are taken for the most part from Mennell's *Dictionary of Australasian Biography* (1892).

details. In connection with the reopening of the College he rendered useful service in compiling for the use of those concerned with the future of the College an account of its foundation and early history. §

Mr. Stephens was one of those who worked for the establishment of the University of Tasmania. He was an original member of the Council of the University, and remained a member until his death. In 1900 and 1901 he was Vice-Chancellor. He attended regularly at the meetings of the Council and other bodies connected with the University, and gave much of his time to the management of its affairs.

Mr. Stephens was elected to the Society in 1858, when a resident of Launceston, and he became a member of the Northern Branch. On his removal to Hobart in 1863, he was elected a member of the Council. In 1880 he was appointed a vice-president. He continued to be a vice-president and a member of the Council until 1911. His membership of the Society extended over 55 years, a period which has been exceeded only by Sir James Agnew, who was a member from 1843 to 1901.

The Society has never had a more active or devoted member. For many years he rarely missed a meeting when he was in Hobart, and he would frequently send a note or an exhibit if he was forced to be absent. His time was always available for the Council, and for the numerous committees to which whenever possible he would ask for business to be referred. Mr. Stephens gave much attention to the regular conduct of meetings, and he would frequently intervene to secure a correct procedure. He was usually a vigorous critic of innovations, and he would take much trouble, both in debate and by interesting members, to defeat any proposal which he disapproved; but occasionally he would propose alterations of rules, usually with a view to reverting to the practice of "the first forty years of the Society," to which he would often allude. His knowledge of these matters was of great use when the Society's rules were redrafted in 1874, and again in 1907 and 1911. Mr. Stephens's precision in the use of language made him especially useful on these occasions.

Mr. Stephens contributed some 27 papers to the Society; and, in addition, many exhibits and notes due to him are recorded in the Society's Proceedings. His papers were almost entirely on the geology of Tasmania. The first, read in 1863, described a discovery of coal in the gold diggings

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at Mangana; while the last, in 1912, is on the mineral springs on the North-West Coast. Mr. Stephens corresponded with many geologists in other countries, and at meetings of the Society he would often read their letters on questions of interest to students of the geology of Tasmania. Mr. Stephens also contributed geological papers to the Proceedings of the Linnæan Society of New South Wales, and to other societies; and at the meeting of the Australasian Association for the Advancement of Science in Hobart in 1902 he read a valuable summary of what was known of the mesozoic diabase of Tasmania.

Mr. Stephens's knowledge of geology was always at the disposal of his friends, and he would take much trouble in answering any inquiries which were made of him. For the last fifty years of his life his home was in Hobart. He built himself several houses, into the last of which he moved only a few weeks before his death. He was twice married, and leaves several children.

RUSSELL YOUNG, 1838-1913.

Mr. Russell Young was a son of Mr. Thomas Young, one of the first solicitors in Tasmania, who settled in Hobart in 1824. Born in 1838, Mr. Young was educated at the High School, and was admitted as a solicitor in 1862. He practised his profession until his death, and for nearly 50 years he was City Solicitor. He was elected to the Society in 1864, and he became one of the most active members. From 1872 to 1877 Mr. Young sat in the House of Assembly as member for Franklin. Among the subjects in which he was interested were forestry and the preservation of scenery. In April, 1876, His Excellency Mr. F. A. Weld, in his inaugural address at the opening of the Society's session, had pleaded "for the preservation of the ferns and forests which are fast disappearing from the sides of Mount Wellington," and had urged that Mount Wellington should be "preserved to future generations as a noble public forest and park." Shortly afterwards Mr. Young, from his place in Parliament, moved that a reserve of 3,750 acres—which includes the whole of what is now the Mountain Park, as well as portion of the area reserved in connection with the water supply of Hobart—"should be made as an inalienable forest for the benefit of the inhabitants of Tasmania." Both Houses of Parliament adopted an address to the Governor asking for this reservation; and the Report of the Society for 1876 records that, "owing to the exertion in Parliament of one of our Fellows, Mr. Russell Young, this great boon has been

"permanently secured to the public." Mr. Young was elected to the Council in 1877, and he served the Society for 33 years. He gave much time to the Society's affairs, and frequently assisted the Council with his professional advice. He was much interested in microscopic life, and was skilled in photomicrography, though he did not contribute to the "Papers and Proceedings." Mr. Young was one of the most prominent and useful of the citizens of Hobart, and numerous matters of public interest had his attention. For many years he was a member of the Queen's Domain Committee. In private life, Mr. Young was a man of unusual taste and refinement, and he had many accomplishments. He remained a member of the Society until 1910.

INSTITUTIONS, ETC., TO WHICH COPIES OF THE
"PAPERS AND PROCEEDINGS" OF THE
ROYAL SOCIETY OF TASMANIA ARE PRE-
SENTED.

AUSTRALIA, COMMONWEALTH OF

Commonwealth Library Melbourne

AUSTRO-HUNGARY.

K. Akademie der Wissenschaften Vienna

K. K. Milit r-Geographisches Institut Vienna

BELGIUM.

Institut Grand-Ducal de Luxembourg ... Luxembourg

Société Royale de Botanique de Belgique Brussels

Société Royale des Sciences Liège

Société Royale Zoologique et Malacologique de

Belgique Brussels

BRAZIL.

Museu Goeldi Para

CANADA.

Canadian Institute Toronto

Geological Survey of Canada Ottawa

Nova Scotian Institute of Science Halifax

Royal Society of Canada Montreal

CAPE COLONY.

Royal Society of South Africa Capetown

S. African Association for the Advancement of

Science Capetown

South African Museum Capetown

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CEYLON.

Colombo Museum Colombo

EAST INDIES.

Sarawak Museum Sarawak

ENGLAND.

Agent-General of Tasmania London

British Museum London

British Museum (Natural History) London

Cambridge Philosophical Society Cambridge

Geographical Association Oxford

Geological Society London

Imperial Bureau of Entomology London

Linnean Society London

Manchester Literary and Philosophical
Society Manchester

Marine Biological Laboratory Plymouth

National Physical Laboratory ... Teddington, Middlesex
"Nature" London

Rothamsted Experimental Station Harpenden

Royal Astronomical Society London

Royal Botanic Garden Kew

Royal Colonial Institute London

Royal Geographical Society London

Royal Horticultural Society London

Royal Institution London

Royal Microscopical Society London

Royal Society London

"Science Abstracts" London

Society of Chemical Industry London

Yorkshire Geological Society Leeds

Zoological Society London

FRANCE.

Société de Géographie Paris

Société Zoologique de France Paris

GERMANY.

Deutsches Entomologisches Museum Berlin

Gesellschaft für Erdkunde Berlin

Königl.-bayer. Akademie der Wissenschaften ... Munich

Naturforschende Gesellschaft Freiburg. i. Br.

Naturwissenschaftlichen Verein Hamburg

Physikalisch-Technische Reichsanstalt ... Charlottenburg

HOLLAND.

Koninklijk Nederlandsch Aardrijkskundig	
Genootschap	Amsterdam
Musée Teyler	Haarlem
Rijks Herbarium	Leiden

INDIA.

Agricultural Research Institute	Pusa
Geological Survey of India	Calcutta
Scientific Advisory Board, Indian Research	
Fund Association	Simla

IRELAND.

Royal Dublin Society	Dublin
Royal Irish Academy	Dublin

ITALY.

Reale Accademia dei Lincei	Rome
Reale Accademia delle Scienze dell' Istituto ...	Bologna
Regia Scuola Superiori di Agricoltura	Portici

MEXICO.

Sociedad Cientifica "Antonio Alzate"	Mexico
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NEW SOUTH WALES.

Australian Historical Society	Sydney
Botanic Gardens	Sydney
Department of Agriculture	Sydney
Department of Fisheries	Sydney
Department of Mines	Sydney
Linnean Society of New South Wales	Sydney
Naturalists' Society of New South Wales	Sydney
Public Library	Sydney
Royal Society	Sydney
Technological Museum	Sydney
University Library	Sydney

NEW ZEALAND.

Canterbury Museum	Christchurch
Dominion Museum	Wellington
Education Department	Wellington
Geological Survey	Wellington
New Zealand Institute	Wellington

NORWAY.

Bergens Museum	Bergen
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QUEENSLAND.

Australian Institute of Tropical Medicine ...	Townsville
Colonial Botanist ...	Brisbane
Geological Survey Office ...	Brisbane
Queensland Museum ...	Brisbane
Royal Society of Queensland ...	Brisbane
University Library ...	Brisbane

RUSSIA.

Académie Impériale des Sciences ...	St. Petersburg
Jardin Botanique Impérial ...	St. Petersburg
Société Impériale des Naturalistes ...	Moscow

SCOTLAND.

Botanical Society ...	Edinburgh
Royal Philosophical Society ...	Glasgow
Royal Scottish Geographical Society ...	Edinburgh
Royal Society ...	Edinburgh

SOUTH AUSTRALIA.

Public Library and Museum ...	Adelaide
Royal Geographical Society ...	Adelaide
Royal Society of South Australia ...	Adelaide
University Library ...	Adelaide

SWITZERLAND.

Naturforschende Gesellschaft ...	Basel
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TASMANIA.

Geological Survey ...	Launceston
Public Library ...	Hobart
Public Library ...	Launceston
University Library ...	Hobart
Victoria Museum ...	Launceston

UNITED STATES OF AMERICA.

Academy of Natural Sciences ...	Philadelphia
Academy of Science of St. Louis ...	St. Louis, Mo.
American Academy of Arts and Sciences ...	Boston
American Chemical Society ...	Columbus, O.
American Geographical Society ...	New York
American Museum of Natural History, Central-park ...	New York
American Philosophical Society ...	Philadelphia
Boston Society of Natural History ...	Boston
Buffalo Society of Natural Science ...	Buffalo, N.Y.
Bureau of Standards ...	Washington

UNITED STATES OF AMERICA.

Department of Agriculture	Washington
Department of Agriculture (Office of Experiment Stations)	Washington
Field Museum of Natural History	Chicago
Library of Congress	Washington
Lloyd Museum and Library	Cincinnati, Ohio
Michigan Academy of Science	Ann Arbor, Mich.
Museum of Brooklyn Institute of Arts and Sciences	Brooklyn, N.Y.
Museum of Comparative Zoology	Cambridge, Mass.
National Geographic Society	Washington
New York Zoological Society	New York
Pomona College (Department of Biology)	Claremont, Cal.
"Science"	New York
Smithsonian Institution (U.S. National Museum)	Washington
United States Geological Survey	Washington
University of California	Berkeley, Cal.
University of Chicago	Chicago
University of Illinois	Urbana, Ill.
Washington University	St. Louis, Mo.
Yale University	Newhaven, Conn.

URUGUAY.

Museo Nacional	Montevideo
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VICTORIA.

Australasian Institute of Mining Engineers	Melbourne
Department of Agriculture	Melbourne
Department of Mines	Melbourne
Field Naturalists' Club of Victoria	Melbourne
Geelong Naturalists' Club	Geelong
Historical Society of Victoria	Melbourne
National Herbarium	Melbourne
National Museum	Melbourne
Public Library	Melbourne
Royal Australasian Ornithologists' Union	Melbourne
Royal Geographical Society	Melbourne
University Library	Melbourne

WESTERN AUSTRALIA.

Geological Survey Office	Perth
Royal Society of Western Australia	Perth
University Library	Perth
Western Australian Museum and Art Gallery	Perth