

PROCEEDINGS
OF THE
AMERICAN PHILOSOPHICAL SOCIETY.

VOL. 1. SEPTEMBER & OCTOBER, 1839. No. 8.

Stated Meeting, September 20.

Present, twenty-eight members.

Mr. DU PONCEAU, President, in the Chair.

The following donations were received:—

FOR THE LIBRARY.

Mémoires couronnés par l'Académie Royale des Sciences et Belles Lettres de Bruxelles. Vol. XIV. Part I. Brussels, 1838.—*From the Academy.*

Nouveaux Mémoires de l'Académie Royale des Sciences et Belles Lettres de Bruxelles. Vol. XI. Brussels, 1838.—*From the same.*

Annuaire de l'Académie Royale des Sciences et Belles Lettres de Bruxelles. Cinquième Année. Brussels, 1839.—*From the same.*

Bulletin de l'Académie Royale des Sciences et Belles Lettres de Bruxelles. Nos. 9 to 12. Brussels, 1838.—*From the same.*

Philosophical Transactions of the Royal Society of London, for the year 1838. Two parts. London, 1838.—*From the Society.*

Proceedings of the Royal Society of London. Nos. 32 to 36 inclusive, and No. 38.—*From the same.*

List of the Council, Scientific Committees, Fellows, and Foreign Members, of the Royal Society of London, 1839.—*From the same.*

Astronomical Observations made at the Royal Observatory, Greenwich, in the year 1837. London, 1838.—*From the same.*

- Appendix to the Greenwich Observations, 1837. London, 1838.—
From the same.
- The Journal of the Royal Geographical Society of London. Vol. IX. Part II. London, 1839.—*From the Society.*
- Transactions of the Royal Geological Society of Cornwall. Vols. I. to IV., inclusive. London, 1818, and Penzance, 1822, 1828, and 1832.—*From the Society.*
- Proceedings of the Botanical Society of London. London, 1839.—
From the Society.
- Bulletin de la Société Impériale des Naturalistes de Moscou. No. IV. Moscow, 1837.—*From the Society.*
- Catalogue of the officers and students of the Medical Institute of the City of Louisville. Louisville, 1839.—*From Dr. C. W. Short.*
- Periodical Accounts relating to the Missions of the Church of the United Brethren, established among the Heathen. Vol. XIV. Nos. 156 to 160 inclusive. London, 1837.—*From Mr. James J. Barclay.*
- The twentieth Report of the Committee of the London Association, in aid of the Missions of the United Brethren, commonly called Moravians. For the year 1837. London, 1838.—*From the same.*
- Particulars of recent Intelligence respecting the Missions of the United Brethren. Nos. 36 and 37. London, 1837 and 1838.—*From the same.*
- Proceedings of the Church Missionary Society for Africa and the East. Thirty-eighth year. London, 1838.—*From the same.*
- Thirty-fourth Report of the British and Foreign Bible Society. London, 1838.—*From the same.*
- Proceedings of the Prayer Book and Homily Society, during its twenty-fifth year. London, 1837.—*From the same.*
- Report of the Proceedings of the Naval and Military Bible Society. London, 1838.—*From the same.*
- Extracts from the Second and Third Reports of the Inspectors of Prisons for the Home District. Two Vols. London, 1837 and 1838.—*From the same.*
- Seventh Annual Report of the Trustees of the New England Institution for the Education of the Blind. Boston, 1839.—*From Dr. Howe.*
- Second Annual Report of the Geological Survey of the State of Ohio. By W. W. Mather. Columbus, 1838.—*From the Author.*
- Documents relating to the Improvement of the Navigation of the Mississippi River. New Orleans, 1837.—*From Mr. Lewis Troost.*

- The Indian Tribes of North America. No. 13. Philadelphia, 1839.
From Mr. F. W. Greenough, Publisher.
- Some Account of the Art of Photogenic Drawing. By Henry Fox Talbot, Esq. F.R.S. London, 1839.—*From the Author.*
- Vocabolario Universale della Lingua Italiana. Vol. VI. Part XXXVI. Naples, 1839.—*From the Chev. Morelli.*
- Di Quattordici Vasi d'Argento discotterati in Pompei nel 1835. Discorso del Cavalier Bernardo Quaranta. Naples, 1837.—*From Mr. Du Ponceau.*
- Di un Vaso Greco Dipinto che si conserva nel Real Museo Borbonico. Discorso del Cavalier Bernardo Quaranta. Naples.—*From the Author.*
- Försök til en Flora Oeconomica Sveciæ. Af A. J. Retzius. Two Parts. Lund, 1806.—*From Mr. John Vaughan.*
- Life of Arthur Lee, LL. D. By Richard Henry Lee, A. M. Boston, 1839.—*From the same.*
- Rapport fait à l'Académie des Sciences, par M. Arago, sur des Appareils de Filtrage de M. Henri de Fonvielle. Paris, 1837.—*From Professor A. D. Bache.*
- Statistique de la Peine Capitale en Belgique, en France, en Angleterre et en Prusse, par Ed. Ducpétiaux. Brussels.—*From the same.*
- A Grammar and Vocabulary of the Language of New Zealand. London, 1820.—*From the Rev. J. P. Engles.*
- Directions for rightly offering up Secret Prayer. (In Armenian).—*From the same.*
- Proverbs in Hinduwee.—*From the same.*
- A Spelling Book written in the Chahta (Choctaw) Language, with an English Translation. Cincinnati, 1827.—*From the same.*
- L'Exercise du Microscope, par François Watkins. London, 1754.
From the same.
- West Port Murders. Report of the Trial of Burke and M'Dougal. Edinburgh, 1829.—*From the same.*
- Bibliotheca Sanscrita. Literatur der Sanskrit Sprache von Friedrich Adelung. St. Petersburg, 1837.—*From the Author.*
- O Kind! Die berühmte ethische Abhandlung Ghasalis. Von Hammer-Purgstall. (Arabisch und Deutsch.) Vienna, 1838.—*From the Author.*
- Facts and Reasons in support of Mr. Rowland Hill's plan of a Universal Penny Postage. By W. H. Ashurst.—*From Mr. Wm. Brown.*

- An Elementary Treatise on the Tides. By J. W. Lubbock, Esq. Treas. R. S. etc. London, 1839.—*From the Author.*
- Note sur les Étoiles Filantes du 12 Novembre, 1838, par M. A. Quetelet. Brussels, 1839.—*From the Author.*
- Note sur les Tableaux Météorologiques pour l'Année 1838, à Bruxelles, par M. A. Quetelet. Brussels.—*From the same.*
- Experimental Researches in Electricity. By Michael Faraday, D. C. L. &c. Fifteenth series, and Index to series I. to XIV. inclusive. London, 1839.—*From the Author.*
- An Inquiry into the Nature of the Numerical Contractions, found in a passage on the Abacus, in some MSS. of the Geometry of Anicius Manlius Torquatus Severinus Boetius, and Notes on Early Calendars. By James O. Halliwell, Esq. London, 1839.—*From the Author.*
- Tracts on Docks and Commerce, with an Introduction, Memoir, and Miscellaneous Pieces. By William Vaughan, Esq. F. R. S. London, 1839.—*From the Author.*
- Narrative of a Journey across the Rocky Mountains to the Columbia River. By John R. Townsend. Philadelphia, 1839.—*From the Author.*
- The American Journal of Science and the Arts. Conducted by Benjamin Silliman, M. D., LL. D., aided by Benjamin Silliman, Jr., A. B. Vol. XXVII. No. 1. New Haven, 1839.—*From the Conductors.*

Professor Bache, on behalf of the Committee appointed on the paper of Professor Elias Loomis, of Western Reserve College, Ohio, entitled "Observations to determine the Magnetic Dip at various places in Ohio and Michigan," reported in favour of publication, and the Report was adopted.

The observations recorded in this paper were made with a dipping needle by Gambey. The results are contained in the following table.

Place.	Latitude.	Longitude.	Date.	Magnetic Dip.
Hudson, Ohio, . . .	41° 15' N.	81° 24' W.	September, 1838.	72° 48'.2
Do.	" "	" "	April, May, 1839.	72 46.8
Cleveland, Ohio, . . .	43 30 "	81 51 "	May, "	73 26.0
Detroit, Michigan, . .	42 19	83 03	" "	73 42.6
Ann Arbor, "	42 18	83 45	" "	73 13.9
Ypsilanti, "	42 14	83 38	" "	73 18.0
Monroe, "	41 55	83 28	" "	73 32.3
Toledo, Ohio,	41 41	83 33	" "	73 06.1
Maumee City, Ohio, . .	41 34	83 38	" "	72 49.1
Sandusky, "	41 29	82 48	" "	72 57.8

Professor Loomis infers from a comparison of these observations with others made in the eastern part of the United States, that the lines of equal dip intersect the parallels of latitude, their direction being from about N. 82° W. to S. 82° E.

Dr. Chapman, from the Committee appointed to apply to Mrs. Madison, for certain meteorological observations made by the late President Madison, reported that a number of documents had been received, and presented them to the Society. The Secretaries were directed to return thanks to Mrs. Madison for this donation.

A necrological notice of the late Bishop White, prepared in pursuance of the request of the Society, by Bishop De Lancey, was read.

Dr. Chapman announced the death of Matthew Carey, of Philadelphia, a member of the Society, and Mr. Lea was requested to prepare an obituary notice of the deceased.

Dr. Bache announced the decease of Dr. Robert Perceval, of Dublin, a member of the Society.

The Librarian of the Society was authorized to furnish to the family of the late Dr. Bowditch, to be placed in the library of the deceased, any volumes of the Transactions which may be deficient in the set belonging to Dr. Bowditch, and the future volumes, so long as the library shall be kept open for public use.

Dr. Hays presented a table, compiled by him, of the peculiarities in various cases of individuals not able properly to distinguish colours. Mr. Kane added the comparisons which he had made, in the case of a friend, with the specimens named by Dr. Dalton, of Manchester, in the possession of Professor Bache.

Professor Bache made a verbal communication of the measures taken by the British government, on the recommendation of the British Association, and under the advice of the Royal Society, for obtaining a series of magnetic observations in different quarters of the globe, in conjunction with a naval expedition in the southern hemisphere, under the command of Capt. James Clark Ross, and read extracts from letters of

Professor Lloyd and Major Sabine, relating to the preparation for the undertaking.

Professor Bache further stated, that on submitting the circular addressed to him by the Foreign Secretary of the Royal Society, with extracts from the letters before referred to, and other information as to the nature and importance of the results to be obtained by this combined system of magnetic observations, to the Building Committee of the Girard College, through their Architect, they had, with creditable liberality, given orders for the erection of an observatory suited to the observations contemplated, and to the instruments already in the possession of the Trustees of the College.

Professor Bache submitted the plans of the observatory, drawn by Thos. U. Walter, Esq. Architect.

Mr. Justice made some remarks in continuation of those offered at the last meeting of the Society, in support of his opinion of a gyratory motion in the tornado of the 31st July, the destructive effects of which were felt about seventeen miles north of Philadelphia.

Stated Meeting, October 4.

Present, twenty-one members.

Mr. DU PONCEAU, President, in the Chair.

The following donations were received:—

FOR THE LIBRARY.

Mémoires de l'Académie Royale des Sciences Morales et Politiques de l'Institut de France. Vol. II. Second series. Paris, 1839.—*From the Academy.*

Institut Royal de France. Séance Publique Annuelle des Cinq Académies, 1839. Paris, 1839.—*From Mr. D. B. Warden.*

Institut Royal de France. Séance Publique Annuelle de l'Académie des Sciences Morales et Politiques, 1839. Paris, 1839.—*From the same.*

Recueil de Voyages et de Mémoires publié par la Société de Géographie. Vol. IV. Paris, 1839.—*From the Society.*