

PROCEEDINGS  
OF THE  
AMERICAN PHILOSOPHICAL SOCIETY.

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VOL. V.            JANUARY—JUNE, 1853.            No. 49.

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*Stated Meeting, January 7.*

Present, twenty-four members.

Judge KANE, Vice-President, in the Chair.

The result of the annual election for officers of the Society, held this day, was reported as follows:—

*President.*

Franklin Bache, M.D.

*Vice-Presidents.*

A. Dallas Bache, LL.D.  
Hon. John K. Kane,  
Robley Dunglison, M.D.

*Secretaries.*

John F. Frazer,  
Charles B. Trego,  
E. Otis Kendall,  
Frederick Fraley.

*Counsellors for Three Years.*

Isaac Hays, M.D.  
Charles D. Meigs, M.D.  
Henry Vethake,  
Jacob G. Morris.

*Curators.*

Franklin Peale,  
John C. Cresson,  
M. Fisher Longstreth.

*Treasurer.*

Charles B. Trego.

The chair was then taken by DR. FRANKLIN BACHE, the President elect.

Letters were read:—

From the Hon. John P. Kennedy, Secretary of the Navy, acknowledging the receipt of the resolutions passed at the last meeting; and expressing his gratification at the action of the Society in relation to the recommendations in his late report, with regard to the Expedition to the Arctic regions, and the furtherance of scientific inquiry:—

From Don Severiano Moraleda, dated Cadiz, Nov. 20, 1852, in relation to a donation for the Library of the Society, from the Director of the Hydrographic Department, at Madrid:—

From Don Jorge Lasso de la Vega, dated Direccion de Hidrografia, Madrid, October 19, 1852, announcing a donation of maps, charts and books, from that Department to the Society, with a catalogue of the same: and—

From the Royal Institution, dated Albemarle street, London, Nov. 30, 1852, accompanying a donation for the Library, and requesting that copies of the publications of the Society may be presented to the Royal Institution.

The following donations were announced:—

#### FOR THE LIBRARY.

Mémoires de l'Académie Impériale des Sciences de St. Petersbourg.

VI. Série. Sciences Mathématiques, Physiques et Naturelles.

Tome VIII. Seconde Partie. Sciences Naturelles. Tome VI.

livraisons 3, 5, 6. St. Petersbourg, 1849. 4to.—*From the Imperial Academy of Sciences, St. Petersburg.*

Mémoires présentés à l'Académie Impériale des Sciences de St. Pe-

tersbourg, par divers Savants, et lus dans ses assemblées. Tome

VI. livr. 2, 3. St. Petersbourg, 1848, 1849. 4to.—*From the same.*

Stellarum Fixarum imprimis duplicium et multiplicium positiones

mediæ, pro epocha, 1830, 0. Auctore F. G. W. Struve. St.

Petersburg, 1852. Folio.—*From the same.*

Sur les Dimensions des Anneaux de Saturne: par M. Otto Struve.

St. Petersburg, 1852. 4to.—*From the same.*

Resultats des Operations Geodésiques de M. M. G. Fuss, Sawitsch et

- Sabler ; exécutées en 1836, 1837, dans la Province Caucasienne. Par M. W. Struve. 4to.—*From the same.*
- Exposé Historique des travaux exécutés jusqu' à la fin de l'année 1851, pour la Mesure de l'arc du Meridien entre Fuglænes, 70° 40', et Ismail, 45° 20'. Par W. Struve, Directeur de l'Observatoire Central de Russie. Suivi de deux Rapports de M. G. Lindhagen, Astronome de l'Observatoire Central, sur l'Expedition de Finnmarken, en 1850, et sur les Operations de Lapponie, exécutées en 1851. St. Petersburg, 1852. 4to.—*From the same.*
- Messungen zur Bestimmung des Höhenunterschieds zwischen den Schwarzen und Caspischen Meere; von G. Fuss, Sawitsch und Sabler, 1836, 1837. St. Petersburg, 1849. 4to.—*From the same.*
- Transactions of the Royal Society of Edinburgh. Vol. XX. Part 3: for the session 1851, 1852. Edinburgh. 4to. Proceedings of the same. Session 1851, 1852. Vol. III. No. 42. Edinburgh. 8vo.—*From the Society.*
- The Quarterly Journal of the Geological Society. No. 32. Vol. VIII. Part 4. Nov. 1, 1852. London. 8vo.—*From the Society.*
- Bulletin de la Société de Geographie. IV. Série. Tomes II. III. Paris, 1851, 1852. 8vo.—*From the Society.*
- Annales des Mines. V. Série. Tome I. 2 livraison de 1852. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*
- The American Journal of Science and Arts. Second Series. Vol. XV. No. 43. Jan. 1853. New Haven. 8vo.—*From the Editors, Professors Silliman & Dana.*
- On the Siliceous Bodies of the Chalk and other Formations, in reply to Mr. J. Toulmin Smith. By J. S. Bowerbank, F. R. S. G. S. &c. 1847.—Microscopical Observations on the Structure of the *Pterodactylus Giganteus* and other Fossil Animals. By the same, 1848:—On a Siliceous Zoophyte, *Alcyonites Parasiticum*. By the same, 1849:—On the Pterodactyles of the Chalk Formation. By the same, 1851. London. 8vo.—*From the Author.*
- Address to the British Association: by Col. Edward Sabine, R. A. Treasurer and Vice-president of the Royal Society, 1852. 8vo.—*From the Author.*
- A Discourse on the Life and Character of Daniel Webster. By H. A. Boardman, D.D. Philadelphia, 1852. 8vo.—*From the Author.*
- Letter to Lord Mahon, being an Answer to his Letter addressed to

- the Editor of Washington's Writings. By Jared Sparks. Boston, 1852. 8vo.—*From the Author.*
- Report of Lieut. Col. Graham, on the subject of the Boundary Line between the United States and Mexico. August, 1852. Washington. 8vo.—*From the Author.*
- Conspectus Generum Avium: Auctore Carlo Luciano Bonaparte. Leyden, 1850. 8vo.—*From George Ord.*
- A Compilation of the Registers of the Army of the United States, from 1815 to 1837 inclusive. By William A. Gordon, of the War Department. Washington, 1837. 8vo.—*From Major Hartman Bache.*
- Cavalry Tactics. 3 vols. Printed by order of the War Department. Washington, 1841.—*From the Adjutant General, United States Army.*
- Instruction for Heavy Artillery: prepared by a Board of Officers for the use of the Army of the United States. Washington, 1851.—Instruction for Mountain Artillery: by a Board of Army Officers. Washington, 1851.—Instruction for Field Artillery, Horse and Foot; compiled by a Board of Artillery Officers. Baltimore, 1845.—Same; translated from the French, and arranged for the Service of the United States, by Robert Anderson, Captain United States Army. Philadelphia, 1839.—The Sword Exercise, arranged for Military Instruction, by Brevet Major Henry C. Wayne, United States Army. Washington, 1850.—Manual of Bayonet Exercise; prepared for the use of the Army of the United States. By George B. McClellan, Brevet Captain United States Army. Philadelphia, 1852.—School of Cavalry: or a System of Organization, Instruction, and Manceuvres, proposed for the Cavalry of the United States: by William Theobald Wolfe Tone, Lieutenant United States Artillery. Georgetown, D. C. 1824.—*From the same.*
- Regulations for the Uniform and Dress of the Army of the United States. June, 1851. From the original text and drawings in the War Department. Philadelphia, 1851. Folio.—*From the same.*
- The Practice of Courts Martial. By Alexander Macomb, Major General of the Army of the United States. New York, 1841. 8vo.—*From the same.*
- Hints on the Medical Examination of Recruits for the Army: and on the Discharge of Soldiers from Service on Surgeon's Certificate. Adapted to the Service of the United States. By Thomas Hen-

derson, M. D. Assistant Surgeon United States Army. Philadelphia, 1840. 8vo.—*From the same.*

Prof. Frazer, from the Committee on Dr. Kane's proposed Expedition to the Arctic regions, reported a Memorial to Congress on that subject, which the Committee recommend for adoption by the Society. The Memorial was read, considered and adopted, and was ordered to be signed by the proper officers and forwarded to both Houses of Congress.

The Rev. Dr. Boardman exhibited to the Society a specimen of *rock-crystal*, from the Alps, of unusual clearness and beauty. It is cut and polished in a graceful form and manner. Length,  $4\frac{1}{2}$  inches; diameter,  $2\frac{1}{2}$  by 2 inches.

Judge Kane referred to the experimental trial of the calorific-engine vessel, recently made at New York. He had been assured by gentlemen who were on board the vessel, a clipper-built ship of about 2000 tons burthen, that the engine, on a first trial, and under unfavourable circumstances, propelled the vessel at a rate of more than six miles per hour: the maximum speed, with the wind, was fifteen miles per hour. The amount of fuel consumed during the trip was between one-quarter and one-fifth of that required for a steam-engine of the same power; and a great advantage also results from the lesser space occupied by the calorific-engine, and the greater safety from fire.

The Judge remarked that, if there was no mistake in all this, it would seem that the time anticipated by scientific mechanics had now come, when the steam-engine would become one of the things that *were*.

Mr. Justice said that the beautiful specimen of rock-crystal, shown this evening, reminded him of a phenomenon recently observed by him in his microscopical observations—and asked for information on the subject. A portion of the ordinary silvering solution was evaporated, and the crystals, while on the *hot* slide of the microscope, exhibited no evidence of polarization of light; but on cooling the ordinary display of beautiful colours appeared.

Mr. Trego, from the Committee of Publication, presented

the Annual Report of that Committee, together with a statement of their Treasurer's Accounts, which were read.

Mr. Fraley, from the Committee appointed to consider alterations in the Laws of the Society, presented the following Report:—

The Committee appointed to consider and report whether any, and if any, what alterations or amendments should be made in the Laws of the Society, have attended to that duty, and respectfully present, herewith, such amendments and alterations as in their judgment will be found beneficial: And in order that the same may be properly and conveniently placed before the members for consideration, they recommend the adoption of the following resolutions:—

*Resolved*, That the Laws of the Society, as proposed to be altered and amended by the Report of the Committee, be printed under their direction, for the use of the members of the Society.

*Resolved*, That the proposed amendments shall be considered by the Society, as in committee of the whole, at the next stated meeting; and that the Laws, as they may be proposed for adoption by the Report of the Committee of the Whole, shall be fairly written out for the final action of the Society thereon, agreeably to the provisions of the existing laws.

The present reading of the reported amendments was, on motion, dispensed with,—and the resolutions were adopted.

Dr. Boardman inquired concerning a catalogue of the Society's library,—and explanation was made upon the subject by the President and the Librarian.

On motion of Judge Kane, a Committee was appointed to consider and report upon some plan for the better accommodation and more convenient arrangement of the Society's Library:—the Committee consists of Judge Kane, Mr. Trego and Dr. Boardman.