

Stated Meeting, December 7.

Present, twenty-five members.

Dr. DUNGLISON, Vice-President, in the Chair.

Letters were read:—

From W. Haidinger, dated Vienna, April 22, 1855, acknowledging the receipt of notice of his election as a member of the Society, and announcing a donation for the library, of sundry essays written by himself on subjects of science:—

From the Literary and Philosophical Society of Manchester, dated Society's rooms, George street,—and from the Natural History Society of Northumberland, Durham and Newcastle upon Tyne, dated Newcastle, Sept. 1, 1855, returning thanks for Vol. X. Part 3, of the Transactions, and for Nos. 49, 50 of the Proceedings:—

From the Zoological Society of London, dated Oct. 11, 1855, and from the Society of Arts, Manufactures and Commerce, dated Adelphi, London, Oct. 17, 1855, acknowledging the receipt of Nos. 51, 52 of the Proceedings:—

From the Royal Geographical Society of London, dated 14th Nov. 1854, returning acknowledgments for Vol. X. Part 3, of the Transactions, and for Nos. 17-49, 50 of the Proceedings:—

From the Imperial Society of Naturalists of Moscow, dated June 13-25, 1854;—from the Imperial Geological Institute at Vienna, dated March 20, 1855;—from the Royal Academy of Sciences at Amsterdam, dated June 5, 1855;—from the Jablonowski Society at Leipzig, July 4, 1855;—from the Natural History Society of Rhenish Prussia and Westphalia, dated Bonn, Aug. 15, 1855; and—from the Royal Society of Northern Antiquaries, dated Copenhagen, Aug. 2, 1855, severally accompanying donations for the library.

The following donations were announced:—

FOR THE LIBRARY.

Mémoires de la Société Royale des Antiquaires du Nord. 1848-9.
Copenhague, 1852. 8vo.

- Antiquarisk Tidsskrift, udgivet af det Kongelige Nordiske Oldskrift-Selskab. 1849–1851. Kiøbenhavn. 8vo.
- Vestiges d'Asserbo et de Söborg, decouvertes par S. M. Frederic VII. Roi de Danemark: mémoire publié par la Société Royale des Antiquaires du Nord. Copenhague, 1855. 8vo.
- Remarks on a Danish Runic Stone, from the Eleventh Century, found in the Central part of London. By Charles C. Rafn. Copenhagen, 1854. 8vo.
- Saga Íátvardar Konungs hins Helga:—udgiven efter Islandske Oldböger, af det Kongelige Nordiske Oldskrift-Selskab. Kiøbenhavn. 1852. 8vo.—*From the Royal Society of Northern Antiquaries.*
- Verhandelingen der Koninklijke Akademie van Wetenschappen, Tweede Deel. Amsterdam, 1855. 4to.
- Verslagen en Mededeelingen der K. Akad. van Wetenschappen. Tweede Deel, 1 Stuk. Derde Deel, 1, 2 Stuk. Amsterdam, 1854, 5. 8vo.
- Catalogus der Boekerij van de K. Akad. van Wetenschappen, gevestigd te Amsterdam. Eerste Aflevering, 1855. 8vo.—*From the Royal Academy of Sciences at Amsterdam.*
- Bulletin de la Société Imperiale des Naturalistes de Moscou. Tome XXVI. Nos. 3, 4. Tome XXVII. No. 1. Moscou, 1853–4. 8vo.—*From the Imperial Society of Naturalists at Moscow.*
- Jahrbuch der K. K. Geologischen Reichsanstalt. V. Jahrgang, 1854. No. 4. Oct. Nov. Dec. Wien. 8vo.—*From the Imperial Geological Institute, Vienna.*
- Verhandlungen der Naturhistorischen Vereines der Preussischen Rheinlande und Westphalen. XII. Jahrgang. 2 Heft. Bonn. 1855. 8vo.—*From the Natural History Union of Rhenish Prussia and Westphalia.*
- Preisschriften gekrönt und herausgegeben von der Fürstlich Jablonowskischen Gesellschaft zu Leipzig. V. H. B. Geinitz, Darstellung der Flora des Hainischen—Ebersdorfer und des Floehaer Kohlenbassins. Mit 14 Kupfertafeln in gross folio. Leipzig, 1854. 8vo.—*From the Jablonowski Society at Leipzig.*
- Monthly Notices of the Royal Astronomical Society. Vol. XV. No. 9. London, 1855. 8vo.—*From the Society.*
- Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. VII. No. 11. Philadelphia, 1855. 8vo.—*From the Academy.*

Yellow Fever, considered in its Historical, Pathological, Etiological and Therapeutical Relations; including a Sketch of the Disease as it has occurred in Philadelphia from 1699 to 1854:—with an examination of the connections between it and the Fevers known under the same name in other parts of temperate as well as in tropical regions. By R. La Roche, M.D. Mem. Am. Phil. Society, &c. &c. 2 vols. Philadelphia, 1855. 8vo.—*From the Author.*

Voyage autour de la Mer Morte et dans les Terres Bibliques, exécutée de Decembre 1850 à Avril 1851. Par F. de Saulcy, ancien élève de l'Ecole Polytechnique, Membre de l'Institut. Publié sous les auspices du Ministre de l'Instruction Publique. XV. Livraison, *Mol-lusques Terrestres et Fluviales*.—XVI. Livraison, *Catalogue des Plantes, et des Espèces d'Insectes Coleoptères*. Paris, 1853. 4to.—*From Prof. J. F. Frazer.*

Address before the Lyceum of Natural History of Williams College, Aug. 14, 1855. By Prof. William B. Rogers, Boston. 8vo.—*From the Author.*

Annales des Mines. V. Série. Tome VI. 6 livraison de 1854. Paris. 8vo.—*From the Engineers of l'Ecole des Mines.*

Fifty-seven Pamphlets and Papers on scientific subjects, chiefly relating to Geology and Mineralogy. By William Haidinger. Vienna, 1841–1855. 4to and 8vo.—*From the Author.*

The African Repository. Vol. XXXI. No. 12. Dec. 1855. Washington. 8vo.—*From the Am. Colonization Society.*

The Medical News and Library. Vol. XIII. No. 156. Dec. 1855. Philadelphia. 8vo.—*From Blanchard & Lea.*

Mr. Ord, pursuant to appointment at a former meeting, read an obituary notice of the late Col. C. C. Biddle, a member of this Society.

Clement Cornell Biddle was descended from a family that early settled in America. His ancestor, William Biddle, a citizen of London, emigrated to West New Jersey in the year 1681, shortly before the arrival of William Penn in this country; and, becoming a large landed proprietor, resided there until his death. Some of the descendants of William Biddle afterwards removed to Philadelphia, where the family have since principally lived. His great-grandson, Clement Biddle, the father of the subject of this notice, was born in this city about the middle of the last century; and was educated in the principles of the Society of Friends. But when the struggle for

Independence began, he took up arms in the cause of his country; and, rising rapidly to a prominent military position, was so fortunate as to win the regard of the Commander in Chief. He was present at the battle of Brandywine; and, in the gloomy winter of 1777-8, when the American army was quartered at Valley Forge, was actively engaged in procuring subsistence for our suffering troops. Many letters from General Washington, written at this period, and now in the possession of his descendants, attest his activity in the Commissariat department, the urgency of the service he was engaged in, and the confidence reposed in him by the Father of his country. At the termination of the war of the revolution, he engaged in business, as a Notary Public; and became well known in commercial circles for his ability in adjusting marine losses. He preserved the friendship, and enjoyed the intimacy, of General Washington, until the close of the life of this great man; and maintained with him a familiar epistolary correspondence until within a few weeks of the General's decease. By his wife, whose maiden name was Rebecca Cornell, he had a numerous family, of which the subject of our obituary was the third son.

Clement C. Biddle was born in this city on the 24th of October, 1784. His early education was received at the Academy of the University of Pennsylvania, then under the superintendence of the Rev. James Davidson. His scholastic training was not of long duration, for, in February, 1800, obtaining a midshipman's warrant, he went to sea, under the command of the elder Commodore Decatur. During a cruise in the Mediterranean he was placed in charge of a prize, which he brought successfully into port. After remaining about three years in the navy, he quitted the service, and shortly afterwards visited England. This was a remarkable epoch, as Pitt and his eminent rival were still living.—Mrs. Siddons and her gifted brother had not yet retired from the stage. His reminiscences of the events of this visit were always fresh; and were the source of much pleasure to himself, and the friends to whom they were occasionally imparted. On his return home he commenced the study of the law, under the instruction of the late John Sergeant, who, although but a few years his senior, was already known as a distinguished practitioner. Though Mr. Biddle was regularly called to the bar, he never engaged in practice; for the insult offered to the United States, by the attack upon the Chesapeake frigate occurring about this time, the whole nation was aroused to an assertion of its rights against the pretensions of Great

Britain; and, having a predilection for a military life, he accepted a commission, as Captain of Dragoons, from President Jefferson; and was stationed with his regiment at New Orleans. The excitement was, however, temporarily lulled, and Mr. Biddle resigned his commission. But when war was declared against Great Britain, in 1812, he originated, in his native city, the company of volunteers, known as the State Fencibles, of which company he was elected Captain, in July, 1812. Although just married, and in circumstances by no means opulent, he gave his whole time and abilities, during the continuance of the war, to the service of his country. On the organization of the First Regiment of Volunteer Light Infantry, of the Pennsylvania Line, he was elected Colonel. In the autumn of 1814, his regiment was stationed at Camp Dupont, in the State of Delaware; but, owing to the retreat of the enemy from Baltimore, it was never actively engaged.

Upon the restoration of peace, Mr. Biddle returned to Philadelphia, and was appointed, by the Governor, a Notary Public; which office he exercised for several years. Although his early education had not been regular, and his varied and desultory mode of life had interrupted the pursuit of letters, still a thirst for knowledge stimulated his naturally vigorous intellect to active exertions. The duties of his office not requiring his whole attention, he employed his leisure in study, and soon made considerable advances in Ethical and Metaphysical investigations; and in the science of Political Economy, for which he evinced a decided bias. An American edition of the *Treatise on Political Economy*, by Jean-Baptiste Say, translated into English by Prinsep, being projected, Mr. Biddle became the editor of it; and, by the addition of notes, and a translation of the *Introductory Essay*, which latter had been omitted by the English editor, the *Treatise* has been so favourably received by the public that it has passed through many editions. An autograph letter from Dugald Stewart, in February, 1824, and another from J. B. Say, in August of the same year, afford evidence of their approbation of the services of the American editor.

Upon the assembling of the Free Trade Convention, in Philadelphia, in September, 1831, Mr. Biddle took an active part in their deliberations; and, though not prominent as a debater, for which his previous training had not qualified him, he was recognised as one of the best informed members of that enlightened body. Entertaining decided opinions upon the great political questions of the day, he en-

forced them temperately, but without reserve, through the public journals, and in an extensive correspondence; but chiefly in conversational discussion, in which he was particularly happy. Though never in public office, it may be affirmed that he probably contributed as much as any individual to the establishment of the policy which has been finally adopted by the national government, in regard to the subjects of currency, and our commercial intercourse with foreign countries.

In the year 1821, Mr. Biddle was elected a member of this Society; which, at an early day, had availed itself of the services of his father, and uncle, Owen Biddle, the latter of whom was appointed, in 1769, in conjunction with Joel Bailey, to observe, near Cape Henlopen, the transit of Venus over the sun's disk. He was also connected with some of the principal literary and benevolent associations of our city.

In the year 1834, Mr. Biddle was elected President of the Philadelphia Saving Fund Society, an institution which he had been instrumental in establishing, and over which he continued to preside until the time of his death.

In the spring of 1838, after an interval of more than thirty years, he revisited Europe, accompanied with his valued friend, the late William M'Ilvaine; and renewed his acquaintance with scenes and objects of which he still retained a vivid impression. Of this journey, which lasted about six months, he preserved a circumstantial record, which will long be cherished by those for whose sake it was especially intended.

Mr. Biddle's fine constitution continued unimpaired (with the exception of a lameness in one of his limbs), the result of an accident, after his return from Europe, until May, 1854, when he was attacked by that disease which ultimately proved fatal. He rallied, however, from the first blow; and persevered in discharging his official duties until the summer of the present year, when he retired to a rural retreat, in a neighbouring county, which he had been in the habit of visiting for several years. Finding his end approaching, he returned to his city residence; where, on the 21st of August, in less than twenty-four hours after his arrival, he breathed his last.

It has been intimated that Mr. Biddle's academical education was limited; it was, consequently, imperfect; and a sense of his deficiencies was a stimulus to self-exertion. In the pursuit of knowledge the pleasure of acquisition increases with exercise; and that which is at-

tained by dint of application is apt to be more durable than what is derived from authority. The example afforded by the subject of this notice is strikingly appropriate, as but few individuals in our community were more conversant with those branches of polite literature which enhance the usefulness of the citizen or impart a dignity to the gentleman. But it was among his confidential friends that his acquisitions were best known and estimated. His fondness for study increasing with years, he gradually became weaned from public life, which, to one of his temperament, is any thing but inviting. Hence, as the domestic circle was the chief scene of his enjoyments, so there, where he was conspicuous for all those virtues which adorn humanity, has his loss been most severely felt, as it has occasioned a disruption of familiar associations which can never be supplied.

Judge Kane announced the death of Mr. J. J. Vanderkemp, a member of the Society, who died on the 4th inst. aged 72: and, on motion, Thomas I. Wharton, Esq. was appointed to prepare an obituary notice of the deceased member.

Dr. Dunglison announced the death of Dr. T. Romeyn Beck, of Albany, a member of this Society, who died on the 19th of November last.

Dr. Kane exhibited two charts drawn to illustrate the discoveries made during his late voyage to the Arctic seas, and his corrections of existing charts in consequence of observations made during the expedition,—and pointed out many new features in the geography of the regions visited.

Mr. Lea referred to a former communication on *Auroras*, and, with a view of correcting some erroneous impressions, read his notes made at the time of observing the phenomena.

June 11, 1852.—Lat. $50^{\circ} 30'$, Long. $38^{\circ} 11'$ west; wind west-north-west, light. About 11 o'clock, P. M. a pale auroral light was observable at the south, which increased into irregular masses over an arch or bank of darkness, as usual, in which the stars could be plainly seen. The light increased in a little while so as to be quite white and bright, like auroral clouds. The increase of size was towards the east. I looked several times towards the north, in expectation of seeing a corresponding luminousness there, but nothing appeared for 15 or 20 minutes. At this time a single spiculum appeared, nearly under the polar star. It increased in brightness rapidly, and soon

became a beautiful object. The southern light now began to show evident movements towards the form of spicula, with increased brilliancy. In the north, the first spiculum increased in size and brilliancy, and many new ones were now formed to the west of the first. These, as they shot up, increased in brilliancy, arose from the same kind of arch, or dark bank, which was still visible to the south. Then commenced another set of spicula, from the western horizon. The western and northern spicula moved towards the east, and the whole circumference of the heavens now became lighted up with a brilliancy that can scarcely be imagined. The whole had reached the vertex about 20° S. E. of the zenith. This convergence of spicula was very remarkable—the central point itself was not illuminated, but irregularly around it the brightness was very considerable. The spicula were now so numerous that they resembled the radiating sticks of a fan, and they spread around us on all sides. Their movement was rapid, and the brilliancy truly astonishing. The shooting up of spicula from the three dark banks, or arches, was in constant play. In regard to the dark bank at the north, I observed what I had never before seen, viz. occasional spicula arising from various parts *below* the dark arch—this seems to me to be a curious fact.

It became now, at half past 11 o'clock, quite faint, and dying away about 12 o'clock, I retired to bed. Some of the gentlemen remained up, and stated that it became, afterwards, still more brilliant, if possible, and so remained until day-light, at 2 o'clock, which caused the whole to disappear. It certainly was the finest aurora I have ever seen. There was no colour exhibited, but that of intense whiteness.

Dr. Boyé made some observations on the frequency and remarkable brilliancy of auroras, as they appear in the vicinity of Cape Race, and suggested, as very desirable, that the interests of the captains of ocean steamers, who constantly traverse that region, should be enlisted in making accurate observations of these phenomena. He read a communication from Mr. Charles Bullock, describing the appearance of an aurora in that neighbourhood, as seen from the Steamer Humboldt, October 2, 1851.

Dr. Boyé made a communication on *human hair*, and exhibited, in the microscope, a specimen of a hair which had been broken off at the root, and again re-produced. He described

the structure and properties of hairs, and illustrated by drawings the peculiar appearances which they present when subjected to a high magnifying power.

Some remarks were made by Dr. Duglison on the re-production and growth of hairs.

The annual report of the Treasurer was read, and referred to the Committee of Finance.

The Committee of Publication presented their report, which was read.

Stated Meeting, December 21.

Present, sixteen members.

Dr. DUNGLISON, Vice-President, in the Chair.

Mr. Samuel Powel, a recently elected member, was introduced and took his seat.

Letters were read:—

From the Literary and Philosophical Society of Manchester, dated Society's Rooms, George street;—and from the Natural History Society of Northumberland, Durham, and Newcastle upon Tyne, dated Newcastle, Oct. 27, 1855,—transmitting acknowledgments for Transactions and Proceedings of this Society: and—

From the Royal Asiatic Society, dated London, Nov. 17, 1855, returning thanks for Nos. 51, 52 of the Proceedings.

The following donations were announced:—

FOR THE LIBRARY.

Proceedings of the American Antiquarian Society, in Worcester, Oct. 22, 1855; with a List of the Officers and Members. Boston. 8vo.—*From the Society.*

Proceedings of the Boston Society of Natural History. Vol. V. No. 16. Nov. 1855. Boston. 8vo.—*From the Society.*

The U. S. Naval Astronomical Expedition to the Southern Hemisphere, during the years 1849, '50, '51, '52. By Lieut. J. M. Gilliss, Superintendent. 2 vols. 4to. Washington, 1855.—*From Lieut. Gilliss.*