

*Stated Meeting, October 17.*

Present, twenty-six members.

Dr. FRANKLIN BACHE, Vice-President, in the Chair.

Letters were announced and read:—

From the Royal Society of London, dated London, June, 1845, acknowledging the receipt of the Proceedings of this Society, Nos. 30 and 31; and of Dr. Dunglison's discourse on Mr. Du Ponceau: and,—

From Dr. T. R. Beck, the Secretary of the Regents of the University of the State of New York, dated Albany, 13th October, acknowledging the receipt of Nos. 1 and 3, of the Proceedings of this Society.

The following donations were announced:—

FOR THE LIBRARY.

Philosophical Transactions of the Royal Society of London, for the year 1845. Part I. London, 1845. 4to.—*From the Royal Society.*

List of the Royal Society of London. 30th November, 1844. 4to. *From the same.*

Proceedings of the Royal Society. 1844. No. 60. 8vo.—*From the same.*

Astronomical Observations made at the Royal Observatory, Greenwich, in the Year 1843; under the direction of George Biddell Airy, Esq., M.A., Astronomer Royal. Published by order of the Board of Admiralty, in obedience to Her Majesty's command. London, 1845. 4to.—*From the same.*

Reduction of the Observations of Planets, made at the Royal Observatory, Greenwich, from 1750 to 1830; computed by order of the Lords Commissioners of the Treasury, under the superintendence of George Biddell Airy, Esq., M.A., Astronomer Royal. Published by order of the Lords Commissioners of the Admiralty. London, 1845. 4to.—*From the same.*

Annuaire Magnétique et Météorologique du Corps des Ingénieurs des Mines de Russie, ou Recueil d'Observations Magnétiques et Météorologiques faites dans l'étendue de l'Empire de Russie, et publiées par ordre de S. M. l'Empereur Nicolas I. aux frais de la

- direction générale des Mines, par A. T. Kupffer. Année, 1842. En 2 parties. St. Pétersbourg, 1844. 4to.—*From the Imperial Administration of Mines, Russia.*
- The American Journal of the Medical Sciences. Edited by Isaac Hays, M.D. No. 20. New Series. October, 1845. 8vo.—*From the Editor.*
- The Medical News and Library. Vol. III. October, 1845. No. 34. 8vo.—*From Messrs. Lea & Blanchard.*
- The African Repository and Colonial Journal. Vol. XXI. October, 1845. No. 10. 8vo.—*From the American Colonization Society.*
- On the Heat of Vapours. By Sir J. W. Lubbock.—*From the Author.*
- A Paper on the Patent Azimuth and Steering Compass, invented by Edward J. Dent, F.R.A.S. Presented to the meeting of the British Association for the Advancement of Science, at York. London, 1844. 8vo.—*From the Author.*
- Bibliotheca Americana, being a choice collection of Books relating to North and South America, and the West Indies, including Voyages to the Southern Hemisphere. Paris, 1840. 8vo. This is the catalogue of Mr. Warder's Books, which were purchased for the New York State Library.—*From the Regents of the University of New York.*
- Illustrations of the Geology of Yorkshire; or a Description of the Strata and Organic Remains of the Yorkshire Coast: accompanied by a Geological Map, Sections, and Plates of the Fossil Plants and Animals. By John Phillips, F.G.S., &c. &c. York, 1829. 4to.—*From Alfred Cope, Esq.*
- Remarks on Prisons and Prison Discipline in the United States. B. D. L. Dix. Boston, 1845. 8vo.—*From the Philadelphia Prison Society.*

#### ADDITIONS TO THE LIBRARY BY PURCHASE.

- Scientific Memoirs, selected from the Transactions of Foreign Academies of Science and Learned Societies. Edited by Richard Taylor, F.S.A., &c. Vol. IV. Part XIII. November, 1844. Part XIV. August, 1845. 8vo.

The list of Standing Committees on subjects of Science, was read.

The Committee on a communication of Mr. Borden, appointed 6th January, 1843, was, on motion, discharged.

On motion, Professor Vethake was excused from the duty assigned him of preparing an obituary notice of the late Mr. Nicklin.

The list of outstanding Committees on obituary notices, was read.

Dr. Patterson laid before the Society sundry specimens of dollars found in the wreck of the San Pedro, destroyed by fire, thirty years ago, off the coast of Venezuela. He read the following note by Mr. Du Bois.

Early in 1815, a naval armament was fitted out in Spain, by Ferdinand VII., for the purpose of reducing the rebellious colonies in South America. The military force of this expedition amounted to 10,000 men, of whom 2000 were on board the flag-ship San Pedro. This vessel was also freighted, to a large amount, with gunpowder, cannon balls, and specie. The fleet touched at the island of Marguerita, near the coast of Venezuela, where, with a variety of other plunder, the San Pedro took on board eight casks of spirits. Having left the island, and making for the main land, which was within six hours' sail, the vessel was discovered to be on fire. The flame, however, was in a fair way of being extinguished, when the steward incautiously opened one of the vessels containing ardent spirits to refresh the hands. The fire, by some accident, came in contact with the rum, and instantly the flames spread so far as to become unmanageable. The ship burnt four hours, until the powder magazine was reached by the fire, when an explosion took place, and the wreck went down, involving in its destruction the lives of 400 men.

The right of working the wreck having not long since been granted by the government of Venezuela to a company of gentlemen in Baltimore, designated as the "San Pedro Company," measures were taken to recover the specie, and other valuables known to have been on board, and a vessel, with diving-bell and workmen, was sent out in February last. The wreck was found sunk in 60 feet water, and 4 or 5 miles from the main land. It was also found that the vessel had rested on a hard bed of coral; on this, (subsequently to the catastrophe,) a layer of thick mud was deposited; and over this was grown another stratum of coral, which has to be pierced to arrive at the remains of the ship.

The diving-bell (which is 5 feet diameter and 5 feet high) is sent

down three or four times a day, with two labourers, who remain down about two hours at a time. During the past season they have brought up a quantity of copper, in various shapes, besides cannon-balls, &c.; and Spanish dollars, the recoinage of which at the Mint has produced about \$18,500. The silver has been much corroded by the action of *sulphur*, which is supposed to have occurred from the usual precaution of placing the specie in the powder magazine. This has occasioned a diminution in value of 7 or 8 per cent., that is, the dollars average 92 or 93 cents each; but the *variation* of loss is very great, as some are found worth 98 cents, and one, with the stamps still visible, was reduced to 34 cents in value. They are all too much spoiled for currency, though in most cases the impressions are very distinct.

The cannon-balls and grape-shot are highly oxidized, and are curious from having lost so much in weight; the shot herewith shown, being 2 inches in diameter, must have originally weighed just 18 ozs. avoirdupois. It now weighs  $7\frac{1}{10}$  ozs. In other terms, its specific gravity has been reduced from about 7.168 to 2.830, by lying 30 years in the ocean.

(NOTE.—By calculation, if 18 ozs. be reduced to  $7\frac{1}{10}$ , 7.168 falls to 2.832, which closely confirms the experiment.)

The above facts were obtained in a conversation with Mr. Gordon, the President of the Company, who kindly placed these specimens in the Mint cabinet.

*Assay Office, U. S. Mint, October 16, 1845.*

N. B. To bring the dollars into a condition fit for deposit at the Mint, the incrustation upon them, consisting of shelly and earthy matter, combined with sulphuret of silver, is first removed. A considerable quantity of this coating has been reduced into metallic silver at the Mint, yielding 38 per cent. in silver. The crusts of black sulphuret, comparatively free from shell, yield 70 per cent. The average value of the dollars, with this taken into account, is about 94 cents.

Whether the dollars would have suffered so much by the mere action of sea-water, is open to inquiry. The loss in this instance is clearly due to the attacks of sulphur, most probably from the gunpowder. No muriate of silver was found in the analysis.

Mr. C. M'Euen exhibited to the Society an engraved Revolving Table, intended to show approximately the time of the meridian passage of a star.

He also exhibited a series of curves laid down from the observations of Dr. Hewson, printed in the Transactions of this Society, showing the extreme and mean temperatures at Philadelphia, for a period of ten years.

He also exhibited tables of the same, for a period of thirteen years, by an unknown observer; and remarked that these did not agree with the others, and from certain evidence contained in them, he suspected that the thermometer observed had been placed in the house.

Mr. Walker stated on behalf of Mr. Kendall, that on the morning of the 6th of July, they had succeeded in making one observation on Encké's Comet. The difference between its place as observed, and that calculated for it in the Ephemeris, was 20 seconds of space in right Ascension, 10 seconds in Declination.

He also stated, that he had received a letter from Professor Mitchell, of Cincinnati, announcing that he had discovered that Antares in Scorpio is a double star. The companion is at the distance of 1.5 seconds of space from the principal, and the brilliancy of the latter contrasted strongly with the faintness of the other.

The Society then proceeded to the stated business of the meeting, the balloting for new members.

The list of outstanding Committees on business, was read.

The Curators charged, 7th January, 1842, with the duty of receiving the standards of measure, left by Mr. Vaughan to the Society, and to have them placed in suitable cases, were, on motion of Mr. Smith, directed to take immediate steps to obtain these measures.

Dr. Elwyn, as Secretary, stated that he had written to the outstanding Committees on obituary notices.

Dr. Dunglison reported, that he had written to Mr. Sartori, in accordance with the direction of the Society of the 15th of August.

The other business of the meeting having been disposed of, the ballot boxes were opened, and the following gentlemen were declared to be elected members of the Society:—

WM. B. CARPENTER, M.D., F.R.S., of London.

Sir WM. JARDINE, Bart., F.R.S., Ed., of Scotland.

Prof. R. LEPSIUS, of Berlin.