

ordinary electricity. Shocks are obtained from these; the screening influence of good conductors is shown to take place; magnetism is developed; and the alternations in the direction are found to exist as in the currents from galvanic induction. Some remarkable results are given in reference to the great distance at which the induction takes place. Experiments are detailed in which needles were made magnetic, when the conductors were removed to the distance of twelve feet from each other.

Prof. Henry made a verbal communication, during the course of which he illustrated, experimentally, the phenomena developed in his paper.

Stated Meeting, November 16.

Present, twenty-four members.

Mr. DU PONCEAU, President, in the Chair.

The following donations were received:—

FOR THE LIBRARY.

The Good Fellow, by Paul de Kock. Translated from the French by a Philadelphian. Two Volumes. Philadelphia, 1837.—*From Daniel J. Desmond, Esq.*

Allgemeiner Hand-Atlas der Ganzen Erde. Weimar, 1811.—*From the same.*

Kongl. Vetenskaps-Academiens Handlingar, för Aor 1836. Stockholm, 1838.—*From the Academy.*

Aorsberättelse om Framstegen i Fysik och Kemi afgifven den 31 Mars 1836; af Jac. Berzelius. Stockholm, 1836.—*From the Royal Swedish Academy.*

Aorsberättelse om Technologiens Framsteg afgifven den 31 Mars 1836; af G. E. Pasch. Stockholm, 1836.—*From the same.*

Aorsberättelse i Astronomien af S. A. Cronstrand. Den 31 Mart. 1836. Stockholm, 1836.—*From the same.*

Aorsberättelser om Nyare Zoologiska Arbeten och Upptäckter, afgifne den 31 Mars 1835 och 1836, af B. Fr. Fries. Stockholm, 1837.—*From the same.*

- Aorsberättelse om Botaniska Arbeten och Upptäckter för Aor 1835. Afgifven den 31 Mars 1836. Af Joh. Em. Wikström. Stockholm, 1837.—*From the same.*
- Tal om Hydraulikens närvarande tillstånd m. m. Af P. Lagerhjelm. Stockholm, 1837.—*From the same.*
- Aminnelse-Tal öfver Kongl. Vetenskaps-Academiens Framlidne Ledamot Friherre Lars A. Mannerheim, af A. G. Mörner. Stockholm, 1837.—*From the same.*
- Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin. Aus dem Jahre, 1836. Berlin, 1838.—*From the Academy.*
- Bericht über die zur Bekanntmachung geeigneten Verhandlungen der Königl. Preuss. Akademie der Wissenschaften zu Berlin. For July, Aug. Sept. Oct. Nov. & Dec. 1837; and Jan. Feb. March, April, May, & June, 1838. Berlin, 1837-38.—*From the same.*
- Essai sur le Madar, (Calotropis Madarii Indico-Orientalis) contenant l'Histoire naturelle de cette Plante, ses propriétés physiques, chimiques, et médicinales. Par J. N. Casanova, C. M. D. Traduit de l'Anglais par L. A. Richy. Calcutta, 1833.—*From the Author.*
- General Observations respecting Cholera Morbus. By J. N. Casanova, C. M. D. Philadelphia, 1834. *From the Author.*
- A Lecture on the Social and Moral Influences of the American Revolution. By Job R. Tyson. Philadelphia, 1838.—*From the Author.*
- The American Journal of the Medical Sciences. Edited by Isaac Hays, M. D. No. XLV, for November. Philadelphia, 1838.—*From the Editor.*
- Transactions of the Agricultural and Horticultural Society of India. Vol. V. Serampore, 1838. *From the Society.*
- Agricultural Society of India. Proceedings. Four numbers. From Jan. to April. Calcutta, 1838.—*From the same.*

FOR THE CABINET.

- Three specimens of quicksilver ores, eight of silver ores, and fourteen of copper ores, from different localities in Chili; six specimens of various ores and minerals, also from Chili; eight fossils from the Cordillera; an ostrich egg from the Pampas of Buenos Ayres.—*From Dr. J. N. Casanova.*

The Committee on the solar eclipse of the 18th of September, made a further Report in part, comprising the following observations:—

No. 30. Observation of A. Holcomb, at his Observatory, Southwick, Mass., with a seven feet Herschelian of his own construction, power 225, with red screen glass. Southwick is in latitude $42^{\circ} 0' 41''$ north; longitude $4h 51m 12s$, by Mr. Holcomb's triangulation with Springfield Court House, one of the points determined by Mr. Paine. Mr. S. C. Walker finds, from Mr. Holcomb's observation of the solar eclipse of 1836, for this longitude $4h 51m 13.2s$. Mean value $4h 51m 12.6s$.

	<i>h</i>	<i>m</i>	<i>s</i>	
Beginning,	3	20	19	Mean time. Observation satisfactory.
End,	5	50	27	Do. Doubtful one second. Sun's limb
Duration,	2	30	8	tremulous, and near horizon.

No. 31. Observation of Prof. Albert Hopkins, at the Observatory of Williamstown College, Mass. Latitude, $42^{\circ} 42' 44''$, longitude $4h 52m 52s$. Astronomical clock regulated by a four feet transit instrument.

	<i>h</i>	<i>m</i>	<i>s</i>	
Beginning,	3	17	19.9	Mean time. Good observation.
End,	(not observed)			Sun too near the horizon.

The Committee on Dr. Hare's paper on the Tornado which passed over a suburb of Providence, R. I., in August last, reported in favour of publication, and the Report was adopted.

The phenomena and facts, stated in this paper, are quite consistent with those mentioned upon the authority of Prof. Bache, Mr. Espy, and other observers, relative to the Tornado which took place in New Jersey, at or near New Brunswick, in June, 1835, and of which an account will be found in the last volume of the Transactions of the Society. This paper embraced a letter from Zachariah Allen, Esq., a highly respectable gentleman of Providence, who was an eye-witness of the Tornado, having been quite as near to it as was consistent with safety. One of the facts noticed by Mr. Allen, Dr. Hare considers as tending to justify his opinion, that the exciting cause of these meteors is electrical attraction. Mr. Allen alleged that, as soon as the Tornado came into contact with the surface of the river, the water rose in a foam; that, under these circumstances, two flashes of lightning passed between the water and the overhanging clouds;

and that, after each flash, there was a perceptible subsidence of the foam. This result is precisely what Dr. Hare conceives would ensue, if the foam arose from an attraction between the water and the stratum of air above, caused by opposite states of electrical excitement. In such case, the passage of sparks always necessarily tends to restore the equilibrium between the electrified masses, and consequently to lessen their reciprocal attraction.

Dr. Hare made a verbal communication in relation to his compound blowpipe. He stated that, having, in a letter to the chemical section of the British Association, mentioned the fusion of twenty-five ounces of platinum, of which he had already informed the Society, a Mr. Maugham, who is employed at the Adelaide Gallery in London to exhibit the hydro-oxygen microscope, had asserted that the fusion in question had been accomplished by a blowpipe of a kind which he had contrived, and of which one had been bought by Dr. Hare when in London.

Dr. Hare said he would not have considered this ridiculous and groundless allegation worthy of notice, had it not been made before the chemical section of the British Association, and had not the individual, by whom it was made, been honoured by a British society with a premium for the instrument which he miscalled *his* blowpipe. This blowpipe differed immaterially from one of which he, Dr. Hare, had published an engraving and description in Silliman's American Journal of Science for 1820, (Vol. II., page 298, fig. 3;) being a modification of his blowpipe described in Vol. XIV. of Tilloch's Philosophical Magazine for 1802.

The only difference between the instruments described and represented in those publications, and that employed by Maugham, was that the latter formed near the apex an acute angle, so as to be convenient for directing the flame upon a cylinder of lime for producing the lime-light.

With a view to show this method of illumination, agreeably to the process in which a revolving cylinder of lime is employed, Dr. Hare stated that he had purchased one of the crooked blowpipes alluded to; *but he had never used it for any purpose*, having found his own blowpipe abovementioned preferable, when the jet was directed obliquely upwards.

Unless cured of the crookedness, which was its only essential distinguishing attribute, the blowpipe used by Maugham was evidently unfit for the fusion of any metal. Dr. Hare stated that he would not undertake the fusion with it of an ounce of platinum; and concluded by saying, that, whenever the process by which he had lately extended the power of his blowpipe should be published, it would be seen, that, however it might differ from those which he had previously contrived, it differed still more from that which Maugham had appropriated to himself.

Prof. Bache informed the Society, that, in conjunction with Prof. Rogers and Mr. Saxton on the nights of the 12th and 13th of November, and with Prof. Rogers and Mr. Walker on the 13th and 14th, he had observed the number of meteors or shooting stars. The first night was clear for only about an hour, viz., between three-quarters past one and two, when but one meteor was seen. The second was clear until half past two; but not even an ordinary average number of meteors was seen.

On the authority of a letter from Mr. Levett Harris, Dr. Bache reported the decease of Mr. F. H. Le Comte, of Paris, a member of the Society.

Stated Meeting, December 7.

Present, twenty-seven members.

Dr. PATTERSON, Vice 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. XII. Brussels, 1837.—*From the Academy.*

Bulletin de l'Académie Royale de Bruxelles. Nos. 10, 11, & 12. Brussels, 1837.—*From the same.*