

elapsed between the flash and bang. Parry's girl was outside, and came in crying; said she had seen "a very funny kind of lightning." Parry remarked it shook his door."

The two men named above are in my employ, and live about 300 yards from my house. Some friends of ours living about two miles from us also saw the flash and heard the report, but the latter not so loud as we did. They described it as sounding as if a bird had flown against the window."

I give the above extracts *verbatim*, as first impressions, uninfluenced by what one hears or reads subsequently, are much the most valuable.

Dr. S. Drew, of Chapelton, Sheffield, writes as follows:—

I send you the following calculations as to the meteor of November 23. They may interest some of your readers. The estimates are only intended as approximate, as the observations at different points of view were too vague for much accuracy, and indeed, in two instances, obviously quite unreliable.

The visible course of the meteor appears to have been from a point about 150 miles above the town of Worksop to the Irish Channel, north-west of Liverpool, probably nearly half-way between Liverpool and the Isle of Man—a direction from east by south to west by north, the horizontal distance traversed being rather over 100 miles and the perpendicular 150 miles. The size of the fire-ball before breaking up was about 150 yards in diameter. By this is meant the size of the luminous sphere, not that of the actual bolide, which would be much less.

The rate of motion was near twenty miles per second in horizontal, and thirty miles in perpendicular; as this in horizontal is little more than would be caused in appearance by the orbital and diurnal motion of the earth, it is evident that the proper motion of the meteor was nearly perpendicular to the earth's surface; and, if belonging to the solar system, it must have moved in a very eccentric orbit, stretching far beyond that of the earth. The meteor broke at an elevation of about fifty miles, and then appeared much larger. The fragments must have dropped into the sea.

Was it seen from Ireland or the Isle of Man?

S. A. K. writing to the *Manchester Courier* from Blackpool states that about 8.30 P.M. on the 23rd he beheld a ball of a pale blue colour shoot across the sky from east to west, followed by a train of rainbow lines, brilliant beyond description. "It was over in a moment; but as I and several others stood discussing the phenomenon we had just witnessed, two muffled booms as of far-distant cannon were distinctly heard in the west, after an interval of two or three minutes." Capt. Tupman writes from the Royal Observatory, Greenwich, to the *Times*: "There is reason to suppose that the great meteor which appeared at 8.20 P.M. on Friday last (November 23) fell into the sea near the mouth of the river Dee. From its splendour it was probably seen by many persons near the shores of North Wales, Cheshire, and Lancashire, whose observations would be of the greatest value; and I venture to solicit the publicity of your columns in order that such observations may be forwarded here. On Tuesday night (Nov. 27), at 10.26, G.M.T., I observed another pass slowly from a point about 6° over Castor to 5° left of Sirius. It remained in sight fifteen or sixteen seconds, determined by counting. Towards the end it became faint, of a dull red colour, and moved with extreme slowness. I have no doubt it must have appeared very large to observers near Dover and in Normandy, and it is to be hoped its path has been recorded elsewhere."

A meteor was observed at Strassburg on November 23, the very day when the meteor was observed in England, but the time was a little after six o'clock (local time), and the direction from north to south. A violent detonation was heard, but without any resemblance to that of thunder. The light was as vivid as ordinary lightning at Strassburg. A witness states that he saw the meteor falling at a small distance from him (three or four metres) in a wood belonging to the Chevaudier de Valdrome on the new road leading from Lorquin to the French frontier. All the trees were illuminated as if by daylight. It is not reported by the *Strassburg Gazette* whether any stone was found on the spot.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

OXFORD.—The Brackenbury Scholarship in physical science has been awarded to Mr. Cunningham, Balliol College.

LONDON.—The Council of University College have awarded the Sharpey Physiological Scholarship to Mr. Patrick Geddes and the Joseph Hume Scholarship in Political Economy of 20*l.* per annum for three years to Mr. J. G. Schurman.

EDINBURGH.—A public meeting, under the presidency of the Right Hon. the Lord Provost, was held on the 29th ult. at Edinburgh to advocate the claims of the Edinburgh University Buildings Extension Scheme. The cost of the new medical school, &c., will be about 187,000*l.*, and of that sum 82,000*l.* has been subscribed by the public and 80,000*l.* has been promised by Government on condition that the remaining 25,500*l.* be subscribed before the end of next year. It was announced that about 10,000*l.* of this has been promised, leaving upwards of 14,000*l.* still to be raised. In support of the appeal it was mentioned that in some class-rooms there is not sitting room for the students. The number of students is increasing every year, there being at present enrolled 212 more than at the same time last year, so that before the summer session is over there will probably be close on 2,500 students matriculated.

The first meeting of the fourth session of the Chemical Society of the University was held in the University on November 28, the president, Prof. A. Crum Brown, in the chair. The president gave an introductory lecture on the "Life and Works of Dr. Joseph Black." The following office-bearers were elected for the ensuing session:—President—Prof. A. Crum Brown; Vice-Presidents—J. Gibson, Ph.D., F.R.S.E., W. Inglis Clark, B.Sc.; Secretary—J. Adams; Treasurer—C. Maxwell, R.N. The society numbers fifty-two members, and ten new members were proposed.

MANCHESTER.—A Chemical Society has been commenced at the Owens College. The society is intended to include all students of science at the College—Dalton Scholars, Associates, and a few others connected now, or in the past, with the Science Classes of Owens College. The society was opened on Wednesday evening by an address from Prof. Thorpe, F.R.S. on "Robert Boyle and the Sceptical Chemist." The Syllabus of the society for the session is as follows:—"Are the Elements Elementary?" by Mr. Pattison Muir; "Graham," by Mr. P. P. Bedson, B.Sc.; "Berzelius," by Mr. J. K. Crow, B.Sc.; "Alkali Manufacture," by Mr. Bevan; "Crystallisation," by Mr. Baker; "Liebig," by Mr. C. F. Cross; "Valensy," by Mr. O'Shea; "Chemical Industry of Japan," by Mr. Sigura; and a paper, subject not settled, by Prof. Gamgee. It is hoped and believed that the society will tend to increase the interest in scientific pursuits already manifested by members of the College.

FRANCE.—A number of important measures have been taken by the French Minister of Public Instruction for fostering the zeal of students and professors in the several French faculties. By a decree issued on November 5 a number of scholarships have been created in each academy at the expense of the public exchequer. In future years scholars are to be appointed after having passed special examinations similar to those for exhibitions in the English universities. Exceptions are created in favour of students who have been particularly successful in taking their preliminary degrees and have published approved papers in the *Academical Transactions*, or have rendered special services in tuition. For the present year the different scholarships are to be granted by a special commission. Three of these commissions have been established—one for letters, another for science, and the third for medicine. These scholarships are to be continued only for a limited time, varying from two to four years, but are to be stopped at once if the scholar does not give satisfaction to the professors or lecturers. A part of these scholarships is to be granted to candidates for the mastership of arts (*Licencié-ès-Lettres* and *ès-Sciences*), and another part to the masters in several faculties wishing to take the highest honours in their respective faculties. By another decree, published on the same day, M. Brunet has created a number of lectureships styled "conferences." A number of the lecturers are to act as public tutors, helping public professors in their duties. Other lectureships are to be granted to professors teaching supplementary sciences which, up to the present time, have not come within the limits of the official programme. The salary of all of them is 120*l.*, and they are to be appointed yearly from among doctors or members of the academies. In some peculiar cases Masters of Arts are eligible to these lectureships. The new organisation is expected to work during the present classical year.