

been expended, to provide additional quarters for the accommodation of the increasing number of students, and the natural demands for expansion in the specialties of each department. At the present moment an additional section of the museum would barely meet our requirements." We understand that work will commence on this another season. Nor is the interest wholly confined to the students. Most of the exhibition-rooms having been thrown open to the public, the number of visitors has greatly increased, so that it has become necessary to begin the erection of a large portico-front to the main entrance on the middle of the south side, and to transfer to it the staircases, which are now wholly insufficient to accommodate the stream of visitors. At the same time it will greatly relieve the now somewhat barren façade of the building.

THE NOVEMBER IOWA WEATHER bulletin, by Dr. Gustavus Hinrichs, closes with an intimation of the character of the coming winter. "The probability is very high that the winter now begun will be a mild one in Iowa and the north-west. The very fact that the last two winters have been severe ones greatly increases the probability stated. It should, however, not be forgotten that even the mildest of Iowa winters has spells of severe weather and blizzards." We must not infer from this that Dr. Hinrichs has any intention of competing with such long-range weather prophets as Mr. Blake, editor of a self-complacent sheet called the *Future*, or others of that class. The prediction here quoted is probably based simply on the fact that the mean temperature of a region for a long term of years is essentially constant, and hence severe winters will generally be compensated by mild ones; but studies of this kind in Etrope show that any rules thus based are very often broken. No one could safely order a smaller supply than usual of winter coal, or attempt to make a corner in ice, on such indications, especially as the term 'mild winter' is not considered incompatible with some spells of severe weather and blizzards. Severe winters may, on the other hand, have low mean temperatures, while they are relatively free from heavy snows, which form the chief element of severity in the mind of a railroad superintendent.

ISAAC LEA, LL.D.

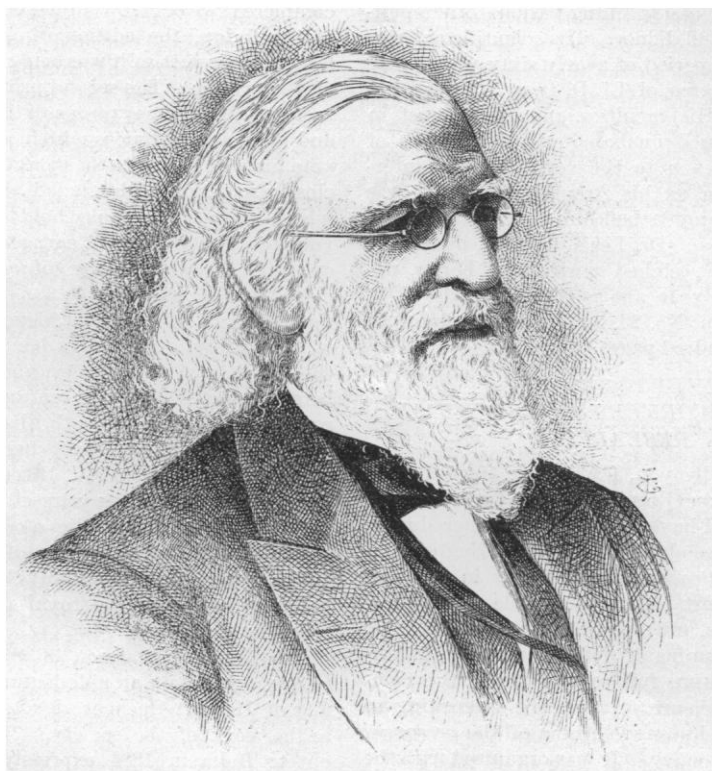
DR. ISAAC LEA, the Nestor of American naturalists, died at his home in Philadelphia on the 8th

instant. Dr. Lea was born in Wilmington, Del., March 4, 1792. He was of Quaker descent, his ancestors coming from Gloucestershire, England, with William Penn on his second visit. His taste for natural history exhibited itself at an early period, and was fostered by his mother, who was fond of botany, and by his association with Vanuxem, then a youth, who was devoted to mineralogy and geology, then hardly organized as sciences. Their studies were undirected, and only in 1815 did they become members of the Academy of natural sciences, then about three years old. Lea forfeited his birthright in the Society of friends by joining a company raised for the defence of the country, in 1814, though the organization was never called into service. Though engaged in learning mercantile business, young Lea became an active member of the academy, and published a mineralogical paper in its journal in 1817. This was followed by a very long series of contributions to mineralogy and conchology, recent and fossil, which have made his name familiar to naturalists all over the world. He married, in 1821, Miss Frances A. Carey, the daughter of Mathew Carey, the well-known economist, and became a member of the publishing-house of Carey & sons, from which he retired in 1851. Mr. Lea's married life was exceptionally long and happy, lasting fifty-two years, and blessed with two sons and a daughter, who still survive.

In 1825 began those studies of the fresh-water and land shells, especially the Unios, with which Dr. Lea's name will always be associated. In 1827 he published his first paper on the genus Unio. In 1836 he printed his first 'synopsis' of the genus, a thin octavo of fifty-nine pages. The fourth edition of this work appeared in 1870, when it had grown to two hundred and fourteen pages quarto.

Dr. Lea was a member of most American and many foreign scientific societies. He visited Europe, and studied his favorite mollusks at all the museums, where he made the acquaintance of Férussac, Brongniart, Gay, Kiener, and other distinguished men, whose names now sound like echoes of a past epoch.

In 1833 Dr. Lea published his 'Contributions to geology,' at that time the best illustrated paleontological work which had ever appeared in the United States, the text of which was remarkable for the care and judgment evinced in its preparation. Up to 1874 he continued ever busy; and the number of new forms, recent and fossil, made known by him, amounts to nearly two thousand. His activity continued almost unabated up to some ten years ago. Not content with figuring



ISAAC LEA, LL.D.

BORN MARCH 4, 1792; DIED DEC. 8, 1886.

and describing the shells alone, he figured the embryonic forms of thirty-eight species of *Unio*, and described the soft parts of more than two hundred. He also investigated physiological questions, such as the sensitiveness of these mollusks to sunlight and the differences due to sex. His 'Observations on the genus *Unio*' form thirteen quarto volumes magnificently illustrated.

Dr. Lea presided over the Academy of natural sciences for several terms, and was president of the American association for the advancement of science in 1860, beside filling various other positions of trust and honor. His scientific activity extended over a period of nearly sixty years. He received the degree of LL.D. from Harvard college in 1852. His faculties, and his interest in research, continued unabated up to the time of his death, and even to the very last such intercourse with him as his strength permitted was felt by all who approached him as a privilege. A full bibliography of Dr. Lea's writings, illustrated by an admirable etched portrait by Ferris, appeared about a year ago as Bulletin of the U. S. national museum, No. 23, and forms a volume of nearly three hundred pages.

ENGLISH WORKERS IN PSYCHICAL RESEARCH.

As requested by you, I will give the information respecting the English society for psychical research which I have been able to gather during a recent residence abroad. Both the English and American societies have been happy in securing the active support of the most able and widely known scientists, and under their guidance psychic research is assuming a definiteness and importance which claims full recognition in the commonwealth of science. It may be interesting to your readers to know something of the *personnel* of the English society. It was organized with the following officers: president, Prof. Henry Sidgwick; vice-presidents, Arthur J. Balfour, M.P., Prof. W. F. Barrett, Rt. Rev. the Bishop of Carlisle, John R. Holland, M.P., Richard H. Hutton (editor of the *Spectator*), the Rev. W. Stainton Moses, the Hon. Roden Noël, Prof. Lord Rayleigh, Prof. Balfour Stewart, and Hensleigh Wedgwood.

The president, a nephew of Lord Salisbury, is widely known by his philosophical works. Both his time and his most liberal purse are given without stint to the work of the society. Mrs. Sidgwick is one of the most effective contributors to the work of the society, not only in her independent investigations, but also by her writings and her able addresses at the public meetings. She is holding her own position ably against the urgent

claims of supernaturalism on the part of the believers in mediumistic phenomena. Her brother, Lord Rayleigh, is well known to those who attended the meeting of the British association in 1884 at Montreal.

Prof. W. F. Barrett of Kings college, Dublin, first organized the movement, both in England and America, and is known personally, as well as by his scientific reputation, to many of your readers. Edmund Gurney, Esq., author of a large quarto volume on 'The power of sound,' has just completed two octavo volumes entitled 'Phantasms of the living,' the edition of which was burned last summer just as it was being put into the hands of the printer. The second printing is issued this month. Mr. Gurney possesses the highest abilities, and is in circumstances which enable him to devote his whole time to the work of the society. In close association with him is F. W. H. Myers, Esq., whose poems are household words with the younger generation of earnest thinkers. He is one of the able corps of government chief inspectors of public schools. A most valuable remainder of his time is devoted to the work of the society. Mr. Myers has communicated in the journals of the society, and in recent numbers¹ of the *Nineteenth century* and *Contemporary review*, some most brilliant and suggestive papers on psychology, deserving of the most careful attention of scientists. Prof. Balfour Stewart gives the weight of his counsel, and his presence in the chair at the public meetings held in the rooms of the Royal society of artists in water-colors, where are found many leaders in society, including some of the royal family, as well as scientific gentlemen.

Mr. Richard Hodgson of St. John's college, Cambridge, lately an able lecturer on the philosophy of Herbert Spencer, devotes his whole time to the work of the society. Mr. Hodgson went out to India in 1884 expressly to examine the claims of Madame Blavatski, Colonel Alcott of the Theosophical society, and of other impostors or dupes, to the possession of supernatural powers, acquired by the aid of a class of thaumaturgists in Persia called Mahatmas. Not a few earnest young men in the colleges of England and America, who had lost their faith in historical Christianity, had become fascinated by the claims of the Asiatic theosophists, especially as set forth in Mr. Sinnett's works, 'The occult world' and 'Esoteric Buddhism,' and were prepared to accept the occult philosophy, and with it the alleged miracles of theosophy. The results of Mr. Hodg-

¹ See *Nineteenth century*, May and July, 1884, and November, 1886; and *Contemporary review*, February and November, 1885.