

thious forms (ostrich, rhea, dinornis, aepyornis, emeu, cassowary, kiwi or apteryx) are thoroughly examined and lead the author to unite these two groups into a new division *Palæognathæ*, differing from all the remaining orders (*Neognathæ* equals *Carinathæ* minus *Crypturi*) especially in skull structure.

His conclusion is that the various 'struthious' forms are widely separate in origin; the emeus and cassowaries are on the whole the most primitive, the true ostriches being a later branch from the same stem; the moas are distantly related to the aepyornithes; the kiwis (*Apteryges*) are highly aberrant. The interrelationships of the higher birds are not discussed, but an appended phyletic tree represents *Hesperornis* as one of the *Pygopodes* and *Ichthyornis* as related to the *Steganopodes* (pelicans, tropic birds, cormorants, etc.).

H. F. O.

THE BRITISH ASSOCIATION AND THE DEATH
OF PRESIDENT McKINLEY.

WE reproduce the letter addressed by the President of the British Association for the Advancement of Science to the United States Ambassador to Great Britain and the latter's reply:

BRITISH ASSOCIATION FOR THE ADVANCEMENT
OF SCIENCE.

BURLINGTON HOUSE,
LONDON, W., Sept. 19, 1901.

To his Excellency, The Hon. J. H. CHOATE, Ambassador of the United States of America.

Sir, The General Committee of the British Association for the Advancement of Science, assembled this year in Glasgow, desire me to express to you the horror with which they heard of the attack upon the late President of the United States, and their deep sorrow at his death. On the first day of the meeting in Glasgow the Association telegraphed to Mr. McKinley the assurance of their sympathy and of their earnest hopes for his recovery.

These hopes have not been fulfilled; and it is now my sad duty to inform you that the tragic fate of the President of the United States has cast a deep shadow over our meeting. Together with all our fellow-countrymen we share in the sorrow of the great sister nation which you represent; and we desire, through you, to inform the men of science of America that the members of the British Association are bound to them not only by ties of blood, not only by the links

which unite all students of nature, but by the deeper feelings which draw together those who are partners in a common sorrow, and mourn one of the leaders of our common race.

I am, sir,
Your obedient servant,
A. W. RÜCKER,
President.

AMERICAN EMBASSY,
LONDON, Sept. 23, 1901.

Sir,

I have received with heartfelt gratitude the kind expression of condolence and sympathy at the death of President McKinley which you have forwarded to me on behalf of the General Committee of the British Association for the Advancement of Science.

I shall duly advise my government of its receipt, and it will be highly appreciated by them and by Mrs. McKinley. Your kind message and hundreds of other similar communications from all parts of the British Dominions, carry an assurance of national friendship and goodwill which will be most welcome to the American people.

Yours sincerely,
JOSEPH H. CHOATE.

A. W. RÜCKER, Esq.,
President.

SCIENTIFIC NOTES AND NEWS.

AMONG the scientific men who have expressed their intention of being present at the Yale bi-centennial exercises are Professor Simon Newcomb and Professor Charles S. Minot.

PROFESSOR BASHFORD DEAN, of Columbia University, has returned from his sabbatical year, spent in studying the marine zoology of Japan, and in visiting China and the Philippines. He has sent to the American Museum of Natural History a fine collection of Ainu materials, also a series of glass sponges and of the Japanese long-tailed fowls. For the Zoological Department of Columbia he brings back extensive research and exhibition collections.

WE regret to learn that Dr. J. H. Hyslop, professor of logic and ethics in Columbia University, is ill, and has been given leave of absence for a sabbatical year which he will spend in the Adirondacks. Dr. A. L. Jones, as lecturer, will take his courses.

PROFESSORS MITSURU KUHARA and Hanichi Muraoka, occupying respectively the chairs of

chemistry and physics in the Imperial University of Kyoto, Japan, who have been spending a few weeks in this country, sailed from New York City, on October 8, for Europe, in continuation of their eastward trip around the world. They expect to reach Japan in February, in time to resume their duties at the beginning of the second half-year.

THE Hon. Andrew D. White, United States Ambassador to Germany, arrived in New York on October 5. He will return to his post in Berlin shortly.

THERE was a meeting of the students of the graduate school of Harvard University on October 3, at which Professor E. C. Pickering, director of Harvard College Observatory, made an address.

MR. S. P. JONES, of Atlanta, Ga., has been appointed assistant State Geologist of Georgia, vice Dr. Thomas L. Watson, resigned. Mr. Jones, after five years' work at the University of Georgia, practiced law a year or more, and then pursued a course of geological study with Professors Le Conte, Lawson and Merriam at the University of California. A year or two was spent in teaching, and in 1900 he refused an appointment on the Alabama Geological Survey to accept a fellowship at Vanderbilt University.

DR. ARTHUR WILLEY has resigned the post of curator to the museum at Demarara, to which he was recently appointed, and the place will be filled by Mr. R. Evans, of Oxford.

THE Swiney lectures on geology, in connection with the British Museum (Natural History), will this year be given by Mr. John S. Flett. The subject of the course of twelve lectures is 'The Geological Evidences of Former Geographical Conditions.' The first lecture will be given on October 7.

IN the death of Frederick Fraley, born on May 18, 1804, Philadelphia has lost one of its most honored citizens. Mr. Fraley was always ready to assist scientific work. He was one of the original trustees of Girard College, since 1847 trustee of the University of Pennsylvania, and since 1880 president of the American Philosophical Society.

DR. A. F. W. SCHIMPER, professor of botany at Basle, died on September 9, at the age of forty-five years.

THE London *Times* announces the death of Mr. Martin Fountain Woodward, demonstrator in biology at the Royal College of Science, South Kensington. He was the younger son of Dr. Henry Woodward, F.R.S., keeper of the department of geology in the British Museum, and was drowned on the night of September 15, by the capsizing of a boat on the Irish coast. Mr. Woodward was in temporary charge of the marine biological laboratory of the Fisheries Board for Ireland. He and his friend, Mr. W. Watson, F.R.S., assistant professor to Professor Rücker, at the Royal College of Science, were crossing from Innisbofin, when, about a mile from the shore, the boat was caught by a sudden squall and capsized. Mr. Watson and the fisherman who was with them reached the shore with the aid of an oar, but their companion was not seen again after the boat turned over. Mr. Woodward entered the Royal School of Mines and Normal College of Science in 1883, where he obtained the Murchison Prize and Medal. He was appointed demonstrator in biology in 1885 by Professor Huxley, and had since acted in that capacity to Professor Howes. He was the author of various papers on mollusca and on the dentition of mammalia. In 1898-1900 he edited an English edition of Korschelt and Heider's 'Text-book of Embryology of Invertebrates.' He was secretary of the Malacological Society of London, and was specially devoted to marine zoology, having on several occasions dredged the British and French coasts.

WE learn from *Nature* that the Reale Istituto Veneto announces nine prizes for competition in the faculties of science, letters and arts, for which essays have to be sent in at the close of the years 1901, 1902, 1903. The subjects in science include the projective properties of the two-dimensional algebraic surfaces of n -dimensional space, the geophysical and biological characters of the lakes of the Venetian district excluding the Lago di Garda, and the development of the respiratory apparatus of the pulmonate vertebrata.

THE estate of the late Jacob S. Rogers has been appraised at over \$5,600,000. It will be remembered that the greater part of the estate was bequeathed to the Metropolitan Museum of Art.

THE Paris Academy of Medicine will occupy its new building on the rue Bonaparte at the beginning of next year. It is reported that the Paris Municipal Council will secure the present building on the rue des Saints-Pères, for the Charité Hospital.

At the recent Buffalo meeting of the American Public Health Association officers were elected as follows: President, Dr. Henry D. Holton, Brattleboro, Vt.; 1st Vice-President, Dr. Walter Reed, U. S. Army; 2d Vice-President, Dr. Jesus Chico, Guanajuato, Mexico, and Treasurer, Dr. Frank W. Wright, New Haven, Conn. The next meeting will be held in New Orleans.

The British Medical Journal states that the new Anatomical Department of the University of Glasgow was formally opened by Lord Lister on the afternoon of September 12. The department had for years been hampered by an unsuitable and insufficient accommodation, and the splendid new buildings now inaugurated have been provided through the munificence of the trustees of the late Mr. J. B. Thomson, the well known shipbuilder. The new buildings include an excellent laboratory and museum, and for this museum Professor Cleland has presented to the university his fine collection of anatomical specimens. In his address, Lord Lister dwelt on the importance of the study of anatomy, and congratulated Professor Cleland and the university on the excellent accommodation which was now set apart for that study. Amongst the others who took part in the proceedings were Principal Story, Lord Provost Chisholm, Sir William Turner, and Professor Cleland; and after the speeches the premises were inspected by the company, and afternoon tea was served.

THE new Pathological Laboratory of the University of Oxford will be opened on October 12. Sir William Church, Bart., president of the Royal College of Physicians of London, Dr. G. Sims Woodhead, professor of

pathology in the University of Cambridge, and others will take part in the proceedings.

THE plans of Dr. Walter Wyman, surgeon-general of the U. S. marine hospital service, for the establishment of an institute for the study of yellow fever have been approved by the government.

THE Brazilian government has declared that the City of Rio de Janeiro is infected with the bubonic plague. Eleven cases of bubonic plague and four deaths are reported from Naples.

THE Fifth International Congress of Physiology was opened on September 17, in the physiological laboratory of the University of Turin, under the presidency of Professor Angelo Mosso. Sir Michael Foster was elected honorary president. Professor Fano, Professor Fredericq, Professor Grützner and Professor Sherrington were appointed general secretaries. More than 200 physiologists were present, and 186 communications were announced. A reception was given by the members of the Academy of Medicine of Turin and an exhibition of physiological apparatus was opened.

THE opening meeting of the eleventh session of the British Institution of Mining and Metallurgy will be held on October 17, in the rooms of the Geological Society, Burlington House. The meetings during the session will, to suit the convenience of the members, be held from 5 to 7 p. m., and tea will be provided at 4.30. The annual dinner will be held on the same day.

THE twenty-second annual congress of the French Geographical Society was held recently at Nancy, under the presidency of M. Fournier. There were no less than twenty-two societies represented, of which nineteen were local geographical societies. The Society made a number of recommendations, including the following: That a colonial exposition be held in Algiers; that conventional signs be universally adopted in geographical and topographical work; that the metric system be introduced in those colonies where it has not been adopted; that a decimal division of the quadrant of a circle be adopted; that additional canals be constructed in France; that certain

districts be reforested ; that methods be adopted for increasing the birthrate of France, and that a postal service be organized in China under French auspices.

THE biological teachers on the transport *Thomas*, who went to the Philippine Islands in the latter part of July, organized during the voyage a biological society for the investigation of the fauna and flora of the Islands. Mr. H. H. Kenagy, formerly graduate assistant in zoology, University of Nebraska, was chosen as the first president of the organization.

THE British Antarctic exploration ship, *Discovery*, arrived at Cape Town on the 3d inst.

THE committee on the Senn Medal call attention to the following conditions governing the competition for this medal for 1902: (1) A gold medal of suitable design is to be conferred upon the member of the American Medical Association who shall present the best essay upon some surgical subject. (2) This medal will be known as the Nicholas Senn Prize Medal. (3) The award will be made under the following conditions: (a) The name of the author of each competing essay shall be enclosed in a sealed envelope bearing a suitable motto or device, the essay itself bearing the same motto or device. The title of the successful essay and the motto or device is to be read at the meeting at which the award is made, and the corresponding envelope to be then and there opened and the name of the successful author announced. (b) All successful essays become the property of the Association. (c) The medal shall be conferred and honorable mention made of the two other essays considered worthy of distinction, at a general meeting of the Association. (d) The competition is to be confined to those who at the time of entering the competition, as well as at the time of conferring the medal, shall be members of the American Medical Association. (e) The competition for the medal will be closed three months before the next annual meeting of the American Medical Association, and no essays will be received after March 1, 1902. Communications may be addressed to any member of the committee, consisting of the following: Dr. Herbert L. Burrell, 22 Newbury street, Boston, Mass.; Dr. Edward Martin, 415

South Fifteenth street, Philadelphia, Pa.; Dr. Charles H. Mayo, Rochester, Minn.

THE U. S. Geological Survey has issued a statement concerning the value of the mineral products of the United States from which we take the following:

	1880.	1890.	1900.
Metallic products.	\$190,039,865	\$305,735,670	\$552,418,627
Nonmetallic products.	173,279,135	312,776,503	516,690,262
Unspecified.	6,000,000	1,000,000	1,000,000
Total.	\$360,319,000	\$619,512,173	\$1,070,108,889

Last year the value of the mineral products for the first time exceeded a million dollars. During the past nine years the value of the silver mined has not increased, though there has been a considerable increase in the course of the last four years. During the nine years the value of the gold has increased from 33 to 39 million dollars; of pig iron from 128 million to 129 million; of copper from 33 million to 98 million, and the value of aluminum has increased thirteenfold. The value of bituminous coal has increased from 117 million to 221 million, and the value of petroleum from 30 million to 75 million. While in the case of the metals the output has increased approximately in proportion to the value, this is not the case with petroleum. In 1891 the value of crude petroleum was about 56 cents per barrel, whereas in 1890 it was \$1.20.

UNIVERSITY AND EDUCATIONAL NEWS.

BY the will of the late Susan Cabot Richardson, of Milton, Mass., Radcliffe College will ultimately receive nearly \$200,000.

SYRACUSE UNIVERSITY has received an anonymous gift for the erection of a new building to be called the Hall of Natural History.

It is said that the proposed Milliken University, at Decatur, Ill., will be opened next year, with an endowment of over \$1,000,000, of which sum Mr. James Milliken has given over \$500,000. Professor S. R. Taylor, recently president of the Kansas State Normal School, will be president. The institution is under the charge of the Cumberland Presbyterian church.