

waters about Spitzbergen (see *Fauna Arctica* edited by F. Römer and F. Schaudinn, Vol. 1, Jena, 1900). On the eastern side of the island the fauna is richer, species and individuals more numerous than on the west coast; in the former tract, moreover, the fauna is markedly benthonic, in the latter planktonic. These contrasts are referred to the action of currents. While Gulf Stream water occupies the sea west and north of Spitzbergen it is intimately mixed with the cold water of the polar current on the east. In this zone of mixture the stenothermic and stenohalinic organisms of the plankton are killed, and thus furnish an abundant rain of food for the bottom forms. So thickly planted were the hydroids and bryozoa that at times the heavy dredge did not penetrate to the true bottom at all, but came up full of these organisms. A table of hydrographical observations appears in the narrative of the voyage.

REGINALD A. DALY.

HARVARD UNIVERSITY.

A NEW STAR IN AQUILA.

FROM an examination of the Draper Memorial photographs, Mrs. Fleming has discovered a new star in the constellation Aquila. Its position for 1900 is R. A. = $19^{\text{h}} 15^{\text{m}} 16^{\text{s}}$, Dec. = $-0^{\circ} 19' 2''$. It was too faint to be photographed on 96 plates taken between August 21, 1886, and November 1, 1898, although stars as faint as the thirteenth magnitude are visible on some of them. It appears on 18 photographs taken between April 21, 1899, and October 27, 1899. On April 21st it was of the seventh magnitude, and on October 27, 1899, of the tenth magnitude. Two photographs taken on July 7, and July 9, 1900, show that the star is still visible, and that its photographic magnitude is about 11.5. A photograph taken on July 3, 1899, shows that its spectrum resembled those of other new stars, while a photograph taken on October 27, 1899, shows that the spectrum resembled those of gaseous nebulae.

On July 9, 1900, the object was observed with the 15-inch Equatorial by Professor Wendell, who estimated its magnitude as 11.5 to 12.0, and confirmed the monochromatic character of its spectrum.

E. C. PICKERING.

HARVARD COLLEGE OBSERVATORY.

THE ESTABLISHMENT OF A BUREAU OF CHEMISTRY.

THE following resolutions have been approved by Council of the American Chemical Society:

WHEREAS, the laws of the several states controlling food adulterations are largely ineffective because of the interference of interstate commerce laws, and can be made effective only through national legislation,

AND WHEREAS, by bills now pending in the Congress of the United States and particularly by bills numbered H. R. 9677 and Senate 2426, it is proposed to establish in the United States Department of Agriculture a bureau of chemistry, the director of which shall, under the direction of the secretary of agriculture, be charged with the chemical investigation of the foods produced and consumed throughout the country.

Therefore be it resolved by the Council of the American Chemical Society that the Congress of the United States be, and is hereby, urged to promptly enact into law the said bills, namely H. R. 9677, and Senate 2426, and provide adequate facilities for effective prosecution of the provisions of the said bills.

Resolved, further, that a copy of this resolution be forwarded to the president of the United States Senate; to the speaker of the House of Representatives; to the chairman of the Committees on Agriculture and on Commerce and Manufactures of the Senate of the United States; to the chairman of the Committee on Interstate Commerce of the House of Representatives; to the secretary of agriculture, who shall be charged with the enforcement of the provisions of said bills, and to the presiding officers of the various sections of the Society, urging their co-operation in the movement to secure the establishment of the bureau of chemistry, which shall be charged with the scientific and chemical work required in the enforcement of the provisions of the said bills.

SCIENTIFIC NOTES AND NEWS.

M. GIARD has been elected a member of the Paris Academy of Sciences in the section of anatomy and physiology in the room of the late Milne-Edwards. He received 30 votes, 16

being cast for M. Delage and 12 for M. Vailant. M. Dwelshauvers-Dery has been elected a correspondent for the section of mechanics and M. Oehlert for the section of mineralogy.

THE Berlin Geographical Society has elected honorary members as follows: Mr. Alexander Agassiz, Gen. A. W. Greely, U. S. A., Mr. Morris K. Jesup, President of the American Museum of Natural History, Professor James Geikie, and Professor Bidal de la Blache of Paris. The Society has conferred the gold and silver Karl Ritter medals on Dr. V. Semenov of St. Petersburg and Dr. Hans Steffen of Santiago, Chile, respectively, and the gold and silver Gustav Nachtigal medals on Dr. W. Bornhardt of Clausthal and Dr. Hans Meyer of Leipzig. The Georg Neumayer medal, this year awarded for the first time, was bestowed upon Dr. Boergen of Wilhelmshaven.

THE Balbi-Valier prize (3000 fr.) of the Venetian Institute of Sciences has been awarded to Professor Grassi at Rome, for his work on the relation of mosquitoes to malaria.

THE Paris Academy of Moral and Political Sciences has awarded its Audifred prize of the value of 15,000 fr. to Dr. Yersin for the discovery of his anti-plague serum.

THE Royal Society of Edinburgh has elected the following to honorary membership: Professor Dr. G. F. Fitzgerald (Dublin), Professor Andrew Russell Forsyth (Cambridge), Professor Archibald Livingside (Sydney), Dr. T. E. Thorpe (London), Professor Dr. Arthur Auwers (Berlin), Professor Wilhelm His (Leipzig), and Professor A. von Baeyer (Munich).

PROFESSOR FREDINAND V. RICHTHOFEN has been appointed director of the new museum of oceanography at Berlin, and Dr. P. Dinse of Charlottenburg has been called to fill the position of curator.

WESTERN RESERVE UNIVERSITY has conferred the degree of LL.D. on Mr. Charles F. Brush of Cleveland.

WE take the following items from the *American Geologist*: Mr. Alexander N. Winchell of Minneapolis, who has been the last two years studying at Paris in the laboratories of Professors Lacroix and Hautefeuille, has been elected

professor of zoology and mineralogy in The New Montana School of Mines, Butte, Montana, and will return in time for the opening of the School in September. Professor J. E. Wolff of Harvard University who spent the larger part of last winter studying in Germany is expected to return to America during the latter part of August. Dr. H. Foster Bain, recently assistant State geologist of Iowa, has undertaken a reconnoissance of the zinc field at Joplin, Mo., for the U. S. Geological Survey.

DR. A. L. BISHOP, of Buffalo, has been given charge of the Department of Archaeology and Ethnology to which the Pan-American Exposition at Buffalo is paying special attention.

THE English astronomer Royal Mr. W. H. H. Christie gave a reception at Greenwich Observatory, on July 2d, at which the equipment of the Observatory was viewed by a number of visitors.

WE regret to record the death of Dr. John Ashhurst, Jr., until last year professor of surgery in the University of Pennsylvania, and the author of many important contributions to surgery and medicine. He died from paralysis, in Philadelphia, on July 7th, aged 61 years.

SIR ROBERT MURDOCH SMITH, major-general of the Royal Engineers, and since 1885 director of the Edinburgh Museum of Science and Art, died on July 3d, at the age of 65 years. He had been engaged with Sir Charles Newton's archæological expedition to Halicarnassus, had conducted explorations in Cyrenicia and had charge of the Persian telegraphs.

MR. GEORGE WORKMAN DICKSON, colonial engineer of British Guinea, died at sea on June 10th.

THE New York Board of Estimate and Apportionment has authorized the expenditure of \$200,000 for the Botanical Garden and \$150,000 for an addition to the American Museum of Natural History.

WE have already stated that the magnificent collection of jewels arranged by Mr. George F. Kunz and exhibited by Messrs. Tiffany & Co. at the Paris Exposition has been presented to the American Museum of Natural History. It is now known that the donor is Mr. J. Pierre-

pont Morgan. This collection will be incorporated with the Tiffany-Morgan collection of gems presented to the American Museum of Natural History in 1899, and which formed the Tiffany collection of gems at the 1889 Exposition. The entire collection will be placed in a hall now being prepared for it in the new wing of the museum.

MILNE EDWARDS has by his will bequeathed his library to the Paris *Jardin des Plantes* of which he was the director. It is to be sold and the proceeds to be applied toward the endowment of the chair of zoology which he held. He also leaves 20,000 fr. to the Geographical Society, of which he was president, for the establishment of a prize, and \$10,000 to the *Société des amis des sciences*.

TRINITY COLLEGE library has received from Dr. G. W. Russell a complete copy of Audubon's 'Birds of America.' There are believed to be about 175 copies of the work about half of which are in America.

THE University of Barcelona has employed M. Benlliure, an eminent Spanish sculptor, to make a bust in bronze of M. de Lacaze-Duthiers in recognition of his services to zoology and his hospitality to foreigners who have worked in the marine laboratories established by him. The bust is now exhibited at the Paris Exposition and will be presented by members of the University of Barcelona to M. de Lacaze-Duthiers in the buildings of the University of Paris during the present month.

THE bronze monument in honor of Lavoisier by M. Barras will be unveiled at Paris on the 27th of the present month. The international subscription to the monument now amounts to \$20,000. The monument in addition to the bronze statue of Lavoisier contains two bas-reliefs, one representing Lavoisier in his laboratory dictating to his wife, and the other Lavoisier explaining his discoveries to the Paris Academy of Sciences.

THE *British Medical Journal* states that a monument has been erected to the memory of Dr. Jean Hameau, the obscure general practitioner of the Gironde who in 1836 published a study on viruses, in which he partly anticipated the discoveries of Pasteur. The statue was

unveiled recently at La Teste de Buch, where Hameau practiced. Addresses were delivered by Dr. Laude, the Mayor of Bordeaux and President of the Medical Syndicates Union of France, Professor Lannelongue of Bordeaux and others. Hameau was born in 1779, and died in 1851.

THE Conference on Malaria which the Liverpool School of Tropical Medicine had arranged to hold at the end of July, has been postponed on account of the date suggested clashing with the celebration of the Centenary of the Royal College of Surgeons of England and with other arrangements.

A NEW physiological society has been established in Vienna with Professor S. Exner as president.

The Ohio Geological Survey has been reorganized by the new State Geologist, Edward Orton, Jr., and is now as follows: Edward Orton, Jr., State Geologist, Economic Work in Cement and Clay Industries; Charles S. Prosser, Assistant Geologist, Stratigraphical and Areal Geology; John A. Bownocker, Assistant Geologist, Economic Work in Oil and Gas; Nathaniel W. Lord, Consulting Chemist, Economic Value of Ohio Coals; C. Newton Brown, Special Assistant, Uses of Portland Cement; Albert V. Bleininger, Assistant, Manufacture of Portland Cement; Ralph W. Nauss, Assistant in Chemical Laboratory. This summer Professor Orton and two assistants are fitting up apparatus for testing cements and he will spend some time in the field in Ohio and in visiting the leading cement works of other States. Professor Bownocker is studying the occurrence of oil and natural gas in eastern Ohio; and Professor Prosser is carrying on some stratigraphical field work in the Devonian and Carboniferous systems.

THE members of the Palisades Commission of the States of New York and New Jersey made a tour of inspection on July 13th. It will be remembered that these Commissioners have power to select the land along the Palisades which could be used for establishing a park and preserving the beauty of the rocks. The park must, however, not approach nearer the river than 150 feet. No funds are provided

for the purchase of the land, but the Commissioners may receive gifts and bequests.

SECRETARY HERBERT L. BRIDGMAN, of the Peary Arctic Club, left on July 12th, for Sydney, C. B., to superintend the departure, of the club steamer *Windward* for North Greenland, and if advisable, to take charge of the expedition. The *Windward* carries a full cargo of American flour, oil and sugar, Dominion coal and English pemmican, Maine lumber, New Bedford whaleboats and Mauser rifles from Santiago and will proceed as rapidly as ice and other conditions will permit to Peary's headquarters at Etah. The mail expected from the Norwegian friends of the Fram-Sverdrup expedition has not arrived, and the relief promised for the Robert Stein party landed last year, near Cape Sabine, has entirely failed to materialize. The fate of Stein and his companions depends upon the *Windward*.

Two volumes of the evidence before The British Indian Plague Commission have been issued. They contain a large amount of testimony and numerous reports on preventive inoculation, and other subjects, but the report of the Commissioners has not yet been issued.

A MEETING was held at Liverpool on June 25th under the auspices of the School of Tropical Medicine at which the following resolutions were adopted:

1. That this meeting of the Liverpool School of Tropical Medicine and others, having heard the views of the experts of the School on the conditions for Europeans of life in the tropics, are strongly of opinion that steps should be immediately taken by Her Majesty's Government to improve those conditions in every possible direction by the segregation of Europeans, improved sanitation, better water supply, clearance of bush near towns, light railways to the mountainous districts, and such other means as science may direct. 2. That the Liverpool Chamber of Commerce be requested to co-operate with the School, and to ask the Government to receive a joint deputation on the subject.

Addresses on the subject were made by Professor Robert Boyce, Major Ronald Ross and Professor Flexner.

ACCORDING to a cablegram to the daily papers, the first authoritative report on Count Zeppelin's airship was made on July 10th at a meeting of the

society for the promotion of aerial navigation by experts who either shared in or watched the recent experiment. They declared that improvements in the steering apparatus were necessary, the one at present used having been thrown out of gear on one side of the balloon, rendering its proper guidance and return to the starting point impossible. The steering rods running upward from the car were too weak and became bent. The screw blades consequently did not respond properly. The air pressure motors failed, but it was difficult to say whether this was caused by a defect or by bad handling. The method of transmitting power to the screws will need great improvement to enable the airship to contend against even a light wind. During the recent ascent the wind had a velocity of three metres a second to a height of 100 metres, and against this the vessel sailed well, but at a height of from 150 to 200 metres the balloon was evidently driven before the wind. It must be remembered, however, that this was when one of the rudders was out of gear. If the speed of the screws cannot be increased the blades must be enlarged. Another defect was the continual escape of gas, necessitating constant filling of the receptacle up to the moment of starting. This defect alone will prevent the achievement of the idea of remaining in the air for eight consecutive days, as a single filling costs 10,000 Marks. It is imperative for financial as well as scientific reasons that this defect be overcome. The king and queen of Würtemberg will visit Friedrichshaven on July 12th, when a second ascent will be tried in their presence. On the result will depend whether the vessel shall be improved on its original lines or fundamental alterations be made. The problem will certainly not be abandoned even if there is another failure. Count Zeppelin is far too enthusiastic to give up his attempts. Moreover, large financial interests are at stake. Already more than 1,000,000 Marks have been spent on the machine and experiments, of which amount Count Zeppelin furnished about 500,000 Marks.

THE annual general meeting of Marine Biological Association was held in the rooms of the Royal Society on June 27th. *Nature* states that

the council reported that arrangements had been completed for the supply of sea-water, obtained from the open sea beyond the Plymouth Breakwater, for special experiments on the rearing of sea-fishes and other marine animals. Through the kindness of Mr. J. W. Woodall, the Association has had placed at its disposal a small floating laboratory, which is at present stationed at Salcombe. The periodical surveys of the physical and biological conditions prevailing at the mouth of the English Channel have been continued by Mr. Garstang at quarterly intervals for an entire year. Observations were taken at four fixed stations. They included serial temperature determinations at all depths, filtration of a definite column of water from bottom to surface with a 'vertical net,' and collections of the floating life at surface, mid-water and bottom by means of a special devised closing net. Mr. Garstang has also carried out a series of preliminary experiments on the rearing of sea-fish larvæ under different conditions, with a view to a solution of the difficulties hitherto encountered in regard to the practical work of sea-fish culture.

UNIVERSITY AND EDUCATIONAL NEWS.

FOR the eighth time, we believe, the courts have decided the Fayerweather will case in favor of the colleges. It is said that the case will still be carried to the Supreme Court of the United States. As the amount still involved is about \$3,000,000 it is to be hoped that no legal technicality will prevent the money from being used as Mr. Fayerweather intended and that it will not be diverted to the distant heirs and the lawyers who are trying to get it.

A FELLOWSHIP in Greek has been endowed at Columbia University to be open to graduate students in Barnard College. The name of the donor is not made public. The fellowship will carry with it an annual stipend for the holder of \$500.

THE foundation-stone of the Passmore Edwards Hall of the University of London, which is being erected on a site allocated for the purpose by the London County Council in Clare Market almost on the line of the projected new street from Holborn to the Strand, was laid on June 2d. The hall will furnish the home of the

Faculty of Economics and Political Science (including commerce and industry), established by the University Commissioners, and in it will be carried on the future work of the London School of Economics and Political Science, which is practically coextensive with the new Faculty, and which has been admitted as a school of the University. Toward the expense of carrying on the work the London County Council will contribute £2500 a year, and Mr. Passmore Edwards has vested the sum of £10,000 in three trustees for the erection of the building and for carrying on the work of the School.

DR. WINTHROP E. STONE has been chosen president of Purdue University in Indiana as successor to Dr. James H. Smart, who died last spring. Dr. Stone has been vice-president of the university for several years.

DR. LEWIS G. WESTGATE has been appointed professor of geology in the Ohio Wesleyan University.

DR. JAMES M. SAFFORD, who has been professor of geology in Vanderbilt University for many years, has just retired at the age of seventy. For half a century he has been State Geologist of Tennessee.

DR. GEORGE P. DRYER, associate professor of physiology at the medical school of Johns Hopkins University, has been appointed professor of physiology in the Medical School of the University of Illinois.

DR. STEPHEN RIGGS WILLIAMS, an assistant in zoology at Harvard University and for two seasons instructor at the Cold Spring Biological Laboratory, has been appointed professor of biology and geology at Miami University, Oxford, Ohio, in place of Professor Treadwell, who has gone to Vassar College.

DR. JUSTUS W. FOLSOM, professor of natural science at Antioch College, Yellow Springs, Ohio, has been appointed instructor in entomology at the University of Illinois.

MR. WILLIAM RICHARD SORLEY, professor of moral philosophy in the University of Aberdeen, has been elected to the Knightbridge professorship of moral philosophy at Cambridge University, in the place of Professor Henry Sidgwick who has been compelled to resign owing to ill health.