

giving another instance of the chemical resemblance between H_2O and $-NH_2$.

IN the *Z. Ver. Rübenzucker-Industrie*, A. Herzfeld has a series of articles on lime (CaO) and its compounds. They refer largely to experiments carried out in a furnace of special construction for the purpose of solving the chemistry of lime making. Among other conclusions reached, we note that in the presence of superheated steam the complete burning of lime takes place at 200° lower than in air; that water will expel the carbon dioxide from all its compounds at 800° ; and that the overburning of lime is occasioned almost exclusively by the presence of silica.

A NEW locality for Chili saltpeter has been discovered, according to H. Thoms, in the *Journal für Landwirtschaft*, in southwest Africa in the Kharas Mts. and on the Orange River. The mineral, known locally as Klipzweet, or Boemester, appears as an efflorescence on the rocks, and is used by the natives as a valuable remedy for many ills. Analysis shows it to contain chiefly sodium and potassium nitrates and chlorids, about three parts of sodium to one of potassium, and four parts of nitrate to one of chlorid; it may thus be considered to be an impure Chili saltpeter. No particulars are given as to its abundance, or possible economic importance.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

THE MARINE BIOLOGICAL LABORATORY AT WOODS HOLL.

THE winter meeting of the Trustees of the Marine Biological Laboratory was held in Boardman Hall, Cornell University, upon December 30th. Twelve members of the Board were present, including the President, Professor Osborn, of Columbia; the Secretary, Professor Bumpus, of Brown; Chairman of the Executive Committee, Dr. E. G. Gardiner, of Boston; Professor Clarke, of Williams; Profes-

sor Macfarlane, of Pennsylvania; Professor Penhallow, of McGill; Professor Metcalf, of Baltimore; Professor Patten, of Dartmouth; Professor Morgan, of Bryn Mawr; Professor Peck, of Williams; Professor Wilson, of Columbia; Professor Trelease, of St. Louis. Professor Conklin, of the University of Pennsylvania, was present at the preliminary conference held on Tuesday evening.

The Secretary reported that the Laboratory Prospectus for the summer session of 1898 had been prepared by the Director and was ready for distribution. This prospectus for the eleventh session of the Laboratory provides for the representation of nearly all the universities of the country in the corps of lecturers and instructors. Investigation in Zoology will be under the direction of Professors Ayers, Bumpus, Conklin, McMurich, Metcalf, Morgan and Morrill. The embryological course will be under the direction of Dr. F. R. Lillie, of Michigan, assisted by Messrs. Strong, Crampton, Treadwell and Professor Clapp. The course in Anatomy will be under the direction of Professor Peck, of Williams, assisted by Messrs. Dahlgren, Greene, Lefevre, Murbach, Packard and Waite. The course in Physiology will be under the direction of Professor Loeb, of Chicago, assisted by Messrs. Norman and Lyon. The course in Botany will be under the direction of Professor Davis, of Chicago, assisted by Messrs. Moore, Caldwell, Harper, Fairchild, Webber, Swingle and Esten. The institutions represented in the whole staff are: Missouri, Brown, Pennsylvania, Michigan, Baltimore, Bryn Mawr, Hamilton, Columbia, Miami, Mt. Holyoke, Princeton, Leland Stanford Jr., Johns Hopkins, Detroit High School, Chicago, Harvard, Texas, Bradley Institute, Lake Forest, New York Experiment Station and the United States Department of Agriculture. Special seminars in Embryology and Neurology will be conducted by Drs. Conklin, Morrill and Strong. A course of historical lectures will be given by the Director and Drs. Wilson, Morgan, Wheeler, Watasé and Mall. Upon the list of regular evening lecturers upon General Biology are those who have already contributed to the regular evening course, together with some others. The course of instruction in

Scientific Drawing, by Dr. Arnold Graf, formerly a student of Professor Lang, will be continued in five lectures and demonstrations of all the various methods employed in the illustration of scientific works. The session will extend from June 29th to August 10th. A new feature of the embryological course is that the Director will associate with himself in the lectures a number of specialists in the different groups of vertebrate and invertebrate animals. This admirable prospectus for the coming season was heartily approved by the Trustees and ordered for distribution.

The Treasurer's report showed a balance of \$838 to meet the initial expenses of the coming year, and directed attention to the fact that while many members of the corporation had not as yet paid their dues the expected income from this source will be ample to meet the initial expenditures.

Mr. Gardiner presented a written report to the corporation of the work of the Executive Committee since the last meeting of the Board in September, and recommended certain improvements in the Laboratory buildings at Woods Holl—which were approved. The matter of coöperation between the Laboratory and the United States Fish Commission was also discussed and referred to a special committee who will confer with the new Commissioner to be appointed by President McKinley. The preparation of the decennial report of the Laboratory, which will contain a historical notice, was also referred to the Executive Committee.

THE ESTABLISHMENT OF THE 'UNIVERSITY TABLE' AT NAPLES.

ONE of the most gratifying results of the Ithaca meeting was the hearty response given to Professor Anton Dohrn's offer to American naturalists in respect to the work at Naples, during his recent visit to this country, namely, that if three tables were established by America he would find places for as many students as came over from this country. For several months past efforts have been made to supplement the subscription of Mr. William E. Dodge, of New York, originally designated as a 'Half-year Columbia Table,' and establish what might

be termed an 'American University Table' in distinction from the 'Smithsonian Table' and the proposed Table of American Colleges for Women. Mr. Dodge, upon the recommendation of Professor Osborn, had very liberally consented to drop the name 'Columbia' and continue his subscription under the general designation 'University.' At the business session of the Naturalists, as has been already noted in this JOURNAL, Professor T. H. Morgan brought forward the resolution to appropriate \$100 from the Treasury of the Naturalists towards this University table, and this was unanimously approved. Upon the following day, at the meeting of the Trustees of the Marine Biological Laboratory, Professor H. C. Bumpus, promised to secure an additional \$100 upon behalf of the Marine Biological Laboratory and the Anatomical Laboratory of Brown University. He has promptly fulfilled this pledge, and the University table is now fully established for the present year at least, with the prospect of continuance. Inasmuch as Professor Bumpus has secured the \$100 in the name of the Woods Holl Laboratory, it is eminently appropriate that the Laboratory should have a voice in the appointment of delegates to this table. This appears to be secured by the personnel of the Naples Committee, nominated by the Temporary Chairman, Professor Clarke, namely, Professor T. H. Morgan, Bryn Mawr; Professor H. F. Osborn, Columbia University; Dr. C. W. Stiles, Washington, D. C.; to either of whom applications may be made.

GENERAL.

THE agricultural appropriation bill, carrying \$3,323,402, has been approved by the House of Representatives in committee of the whole. An amendment to strike out the appropriation of \$130,000 for the free distribution of seeds was lost by a vote 19 to 155.

THE Director of the Geological Survey has been directed by Congressional resolution to prepare a map of Alaska showing all known topographic and geologic features, including the gold-bearing rocks, with a descriptive text, the text to include an explanation of the best known routes and methods of reaching the gold fields. 40,000 copies are to be printed.

A BILL will be brought before the next session of the British Parliament appropriating upwards of \$15,000,000 for the rebuilding of South Kensington Museum.

MR. E. W. MAUNDER, Mr. C. Thwaites and the Rev. J. M. Bacon, with the parties under their direction sent by the British Astronomical Association for the observation of the total solar eclipse which occurs to-morrow, had, as we learn from the *London Times*, arrived at Bombay on January 4th. The other observing parties had also arrived. The different observing stations will be as follows: Mr. Maunder and Mr. Thwaites will be stationed at Talni, on the Great Indian Peninsula Railway, between Amraoti and Nagpur; the Rev. J. M. Bacon at Baxar. Mr. W. H. Christie, the Astronomer Royal, and Professor H. H. Turner, forming the third official party sent out by the joint committee of the Royal Society and the Royal Astronomical Society, will be stationed at Sahdol, between Katni and Bilaspur. The observing party from the Government Observatory at Madras, under the direction of Professor Michie Smith, will be at Indapur.

MR. JACOB H. SCHIFF has given \$10,000 to the New York Public Library for the purchase of scientific books.

A BRONZE statue of Charcot by Falguière will be erected in the Salpêtrière, Paris.

WE learn from the *Auk* that Mr. George K. Cherrie has resigned his position as assistant curator of ornithology in the Field Columbian Museum, and has sailed for Bolivar, Venezuela, which he proposes to make the base of exploration in the upper Orinoco region for the period of a year or more.

THE Academy of Sciences, Paris, has nominated as first choice M. Maquenne, and as second choice M. André as candidates for the chair of physiological botany in the Paris Museum of Natural History, vacant by the death of M. Georges Ville.

M. RENÉ CAGNAT has been made a member of the French Commission on Scientific Museums, in the place of the late M. du Courdray La Blanchère.

MM. BERTHELOT, Bourgeois, Fallières and

Liard have been appointed members of the Council of the Paris Museum of Natural History, with M. Berthelot as President.

It is stated in *Nature* that Mr. George Sharman retired at the end of last year from the post of paleontologist to the Geological Survey of Great Britain, with which he had been connected since 1855.

DR. OTTO FINSCH has been appointed director of the ornithological division of the museum at Leiden, in succession to Dr. J. Büttikofer, who, as we announced sometime since, has accepted the directorship of the zoological garden at Rotterdam.

MR. WALTER SICHE, the traveler and florist, has, says *Knowledge*, returned from an expedition to the Cilician and Cappadocian Taurus, with a large number of alpine plants and ten thousand examples of various species of the asphodel family, with varieties of fritillary, galanthus, colchicum, iris and many other plants. Mr. Siche has been the means of introducing many new flowers to the domain of English horticulture.

THE Rev. Charles L. Dodson, from 1855 to 1881 mathematical lecturer at Oxford and the author of valuable contributions to mathematics and logic, has died at the age of sixty-six years. Mr. Dodson is known to every one as 'Lewis Carroll,' author of 'Alice in Wonderland' and other tales, which have delighted innumerable children and older people.

WE regret also to record the deaths of Sir Charles Hutton Gregory, an eminent English civil engineer, on January 10th, at the age of eighty-four; of Mr. Charles Cornevin, professor of hygiene and zoology at the Veterinary School at Lyons, and of Dr. Edward Lindeman, astronomer at the Observatory of Polkowa, aged fifty-three years.

THE National Geographic Society has announced for to-night a meeting in honor of the late Gardiner G. Hubbard, at the time of his death President of the Society. Mr. Alexander Graham Bell, will preside, and the program thus far arranged includes addresses by the following: Surgeon-General George M. Sternberg, U. S. A., on behalf of the joint scientific societies of the District; Dr. Philip G. Gillette,

on behalf of the American Association for Teaching Speech to the Deaf; Dr. B. L. Whitman, on behalf of the Columbian University; Dr. Marcus Benjamin, on behalf of the Society of Colonial Wars; W. L. Wilson, on behalf of the Smithsonian Institution; Mr. A. R. Spofford, Assistant Librarian of Congress, on behalf of the Columbia Historical Society; Major J. W. Powell, of the Bureau of Ethnology, and probably Commissioner Ross, representing the District. General A. W. Greeley will close the meeting with a review of the ten years' work of the Geographic Society, representing the labors of Mr. Hubbard, its late President, during the latter years of his life.

THE British Institute of Public Health will in future be styled the Royal Institute of Public Health. Queen Victoria has accepted the office of Patron of the Institute, and has conferred the Jubilee Medal upon the President, Professor W. R. Smith, M. D. The Council of the Institute has conferred the Harben Gold Medal for 1898 upon Lord Playfair, and has appointed Professor W. R. Smith, Harben Lecturer for the year 1899, and Mr. Henry C. Jones, Solicitor, Secretary to the Institute.

MR. DAVID HUNT, of Boston, has arranged to give four lectures on the 'History of Medicine,' at the Harvard Medical School, on Thursday evenings. The first of the series was given on January 11th, the subject being 'Hippocrates to the Sixteenth Century.'

At a meeting of the Zoological Club of Springfield, Mass., on January 5th, Mr. W. W. Colburn was elected President, and Miss M. A. Young, Secretary. Dr. George Dimmock made a report on the card catalogue of the fauna of the region being prepared under the auspices of the Club. 1,940 species have been listed, the most complete portion being that on birds.

A LINCOLNSHIRE Science Society with several sections has been organized, with a view to advancing the interests of natural history and founding a museum in the county.

THE Nominating Committee of the Appalachian Mountain Club, Boston, has named Professor William H. Niles for President, Mr. Rest F. Curtis for Vice-President, Mr. R. B. Lawrence

for Recording Secretary and Mr. John Richard, Jr., for Corresponding Secretary.

MR. VICTOR HORSLEY, the President-elect of the Neurological Society, London, gave his inaugural address at the annual meeting of the Society on January 13th. The subject of the address was 'The Degree of Discharge of Different Nerve Centers.'

QUEEN VICTORIA has decided to convert the old palace at Kew, near the Botanic Gardens, into a public museum.

M. HOERST has applied to the city of Paris for permission to begin the construction of the colossal terrestrial globe to be erected under the direction of M. Elise Recluse for the Paris Exposition of 1900.

PROFESSOR NORDENSKJOLD, the Arctic explorer, has informed the Swedish Academy of Sciences that the Foreign Office has received intelligence that several persons worthy of credence saw Herr Andrée's balloon early in August, in British Columbia, seven miles north of Quesnelle Lake, in the district of Caribou.

THE statements contained in the daily and other papers regarding the will of the late Alfred Nobel appear to be only partially correct. His personal estate in Great Britain has been valued at £434,093, but the amount set aside for the foundation of the five great prizes is not yet known. It will be remembered that according to the terms of the will the interest of the fund is to be divided into five equal parts, of which one part is to devolve upon him who, within the department of natural philosophy, has made the most important discovery or invention; one other part to him who has made the most important discovery or improvement in chemistry; one other part to him who has made the most important discovery within the department of physiology or medicine; one other part to him who in literature has produced the most excellent work in an idealistic direction; and one part to him who has worked most or best for the fraternization of the nations and for the abolition or diminution of standing armies, as also for the promotion and propagation of peace. The prizes in physics and chemistry are to be awarded by the Swedish Academy of Sciences, for physiological

or chemical work by the Carolinian Institution in Stockholm, for literature by the Academy in Stockholm, and for the propagation of peace by a committee of five persons to be elected by the Norwegian Parliament.

CHAS. D. WALCOTT, Director of the U. S. Geological Survey, will have, in the next issue of *Appleton's Popular Science Monthly*, an article on 'The Preservation of our Forests,' and President David Starr Jordan an article on 'The Evolution of the Mind.'

WITH the January number *The Journal of School Geography* has been enlarged to 40 pages, and the editor, Professor Richard E. Dodge, Teachers' College, New York, announces that it will be improved in several ways. Particular attention will hereafter be given to mathematical geography, elementary meteorology and commercial geography. Mr. Andrew J. Herbertson Collington, Scotland, has become associate editor for Great Britain.

THREE packages of yellow fever serum from Dr. J. Sanarelli, of the Institut de Hygiene Experimentale at Montevideo, have been received at New York, intended for Dr. Wyman, of the United States Marine Hospital service at Washington and for Dr. Doty. Part will be used in experiments made by Dr. Doty's assistant, Dr. C. B. Fitzpatrick, at the laboratory at Quarantine.

UNIVERSITY AND EDUCATIONAL NEWS.

AT a meeting of the Corporation of Yale University on January 13th it was decided to appoint a committee to prepare plans for the proper celebration, in October, 1901, of the bi-centennial anniversary of the granting of the charter to Yale College.

AT a special meeting of the Council of Columbia University, on January 13th, action was taken as authorized by the Board of Trustees, incorporating the Teachers' College as a professional school for the training of teachers. President Low will become President of the Teachers' College, but the Trustees of the College will be continued as an independent board, responsible for the financial administration of the College. The Teachers' College was founded in 1887, Professor Nicholas Murray

Butler, of Columbia University, being the first President. In 1893 the College was partially affiliated with Columbia University for educational purposes. The buildings of the College, erected at a cost of about \$1,000,000 on land given by Mr. George W. Vanderbilt, are adjacent to those of Columbia University and Barnard College. The foundation of a professional school for the training of teachers of the same rank as university schools for medicine and law is one of the most important advances ever made in educational methods.

DISCUSSION AND CORRESPONDENCE.

A PROPOSED ADDITION TO PHYSIOGRAPHIC NOMENCLATURE.

THE rocky mass of the earth, the lithosphere, is mantled in large part by formations whose particles or grains are loosely aggregated, either incoherent or feebly coherent. To these formations collectively Merrill has given the appropriate name *regolith* (stony mantle), a term approximately coördinate with lithosphere, hydrosphere and atmosphere. It was not proposed until its need had come to be distinctly recognized, and I believe it will be promptly adopted in geology and physiography. But a companion term is equally needed. The lithosphere is composed of rock, the hydrosphere of water and the atmosphere of air; of what does the regolith consist? There is no compact name for its material, although surface geology and physical geography have found occasion to mention it so frequently and under so many relations that there are plenty of descriptive phrases. Lying above the firm rock, it is *superficial* or *surficial material*. Having been formed by the breaking up of rock, it is *disintegrated material*. Because destined eventually to coalesce as rock, it is *unconsolidated material*. As a substitute for these binomial terms I propose the word *discrete*.

The adjective *discrete* comes to us along with *discreet*, from the Latin *discretus*, separate. *Discreet* is now appropriated by a secondary meaning, wise, but *discrete* means only separate, incoherent, discontinuous. In converting it into a technical noun I propose to retain this adjective meaning and add the idea of stony