

countries as a great writer and student and scholar, and, among his friends and acquaintances, was recognized as a man of genius and of heart, of perfect frankness and integrity, as well as of delightful personality. He was very extensively acquainted, at home and abroad. His death will be regretted by his numerous acquaintances, and by every one familiar with his work, and will be mourned long and sincerely by all who had the good fortune to be numbered among his personal friends.

R. H. T.

SCIENTIFIC NOTES AND NEWS.

By order of the president, the spring meeting of the Council of the American Association for the Advancement of Science will be held in the Cosmos Club, Washington, D. C., on Thursday, April 17, 1902, at 4:30 P.M.

EDINBURGH UNIVERSITY will confer its LL.D. on President J. G. Schurman, of Cornell University, and on Principal A. W. Rücker, of London University.

DR. JULIUS KUEHN, professor of agriculture at the University at Halle and director of the Agricultural Institute, has been elected a corresponding member of the Paris Academy of Sciences.

THE Russian Geographical Society has awarded its Constantin medal to the geologist, K. J. Bogdanowitsch; the Semenoff medal to Dr. Eduard Suess, professor of geology in the University of Vienna, and the Przewalsky medal to the zoologist, Professor Zarudnyi.

PROFESSOR C. R. BARNES, of the University of Chicago, sailed for Europe March 22, and will spend nine months in visiting the botanical centers.

DR. D. T. MACDOUGAL has returned from Arizona and Sonora with an extensive collection of giant cacti and other large xerophytic plants, which are being installed in the horticultural houses of the New York Botanical Garden. Dr. MacDougal characterizes the recent sensational announcement in the daily press concerning the extermination of the tree cactus (*Cereus giganteus*) as being utterly without foundation.

PROFESSOR TYLOR has given in his resigna-

tion of the office of keeper of the University Museum, Oxford, to which he was nominated on the death of the late Professor Henry Smith, who had succeeded Professor Phillips, the first occupant of the post, on the opening of the museum in 1857. Professor Tylor will continue to hold the readership in anthropology, to which he was appointed in 1884.

DR. EARL LINTNER, professor in the Technical Institute at Munich, has been made director of the scientific station for the study of brewing in the same city.

DR. LOUIS COBBETT and Dr. E. S. St. Barbe Sladen have been appointed by the Royal Commission on Tuberculosis to assist in the experimental work of the commission to be carried out at Stansted. They will reside at the farms and devote the whole of their time to the investigations of the commission.

OWEN'S COLLEGE, Manchester, celebrated its jubilee on March 12 and 13. Among those who presented addresses were Professor Becquerel, representing the Paris Academy of Sciences, and Professor Breymann, representing the Bavarian Academy of Sciences.

MR. CRESWELL SHEARER, of Trinity College, has been nominated to occupy the table at the Zoological Station at Naples, maintained by Cambridge University.

THE Smith prizes at Cambridge University have been adjudged as follows: T. H. Havelock, B.A., St. John's College, for his essay 'On the Distribution of Energy in the Continuous Spectrum'; and J. E. Wright, B.A., Trinity College, for his essay, 'Singular Solutions of Differential Equations with Known Infinitesimal Transformations.'

THE Department of Astronomy of Columbia University announces two lectures open to the public. On April 8 at 3:30 P.M. Mr. Percival Lowell will lecture on 'Modern Mars,' and on April 16 at the same hour, Dr. S. A. Mitchell will lecture on the recent eclipse expedition.

THE Raoult memorial lecture of the Chemical Society, of London, was delivered by Professor van 't Hoff on March 26, in the lecture theater of the Royal Institution.

At a meeting of the members of St.

Thomas's Hospital and Medical School, London, it was decided that steps should be taken to institute a permanent memorial of the connection of the late Sir William MacCormac with the institution. A bust of the eminent surgeon will be placed in the central hall of the hospital, and if the amount of money collected should be in excess of the sum requisite for the bust, some further memorial will be established.

DR. THOMAS CONDON, professor of geology in the University of Oregon, celebrated his eightieth birthday on March 3.

MRS. MARY L. PULSIFER AMES, a writer on botany, has died at San Jose, Cal., aged fifty-seven years.

MR. HENRY HITCHCOCK, a prominent lawyer of St. Louis and one of the trustees of the Carnegie Institution, died on March 15, aged seventy-three years.

PROFESSOR MAXWELL SIMPSON, F.R.S., died on February 26, at the age of eighty-seven years. He had carried forward important researches on organic chemistry, and was for twenty years professor of chemistry in Queen's College, Cork.

PROFESSOR IVAN MUSCHKETOFF, known for his contributions to physical geography, has died at the age of fifty-two years.

THE death is announced of Major-General Pewzoff, known for his explorations in Central Asia, Mongolia and Tibet.

THE accounts of the executors of the late Judge Chas. P. Daly have been filed. It appears that the New York Botanical Garden will receive about \$50,000 from his estate.

THE Civil Service Commission calls attention to an examination on April 22 for the position of assistant anthropologist in the Philippines at a salary of \$2,400 per annum. At the same time there will be an examination for the position of aid in the Division of Physical and Chemical Geology, U. S. National Museum, at a salary of \$1,200 per annum, and for the position of preparateur in the Division of Statigraphic Paleontology at a salary of \$720 a year.

At the Columbia meeting of the Society for Plant Morphology and Physiology, a large

group photograph, including all the members then present, was taken and will soon be ready for distribution. It is a platinum print by Falk, on a card 15x14 inches, appropriately lettered, and will cost about \$3.50. Members and others wishing copies should send their orders immediately to Dr. Erwin F. Smith, Department of Agriculture, Washington, D. C.

THE newly-organized American Philosophical Association will hold its first meeting at Columbia University, New York City, on March 31 and April 1. Professor J. E. Creighton is president of the Association.

DR. JOHN S. BILLINGS has presented to the New York Botanical Garden his large collection of fungi. It contains much valuable and interesting material; besides numerous specimens collected by Dr. Billings in the vicinity of Washington, D. C., there is a nearly complete series of Ravenel's Texan collections; it is particularly rich in representatives of the Sphaeriales, and includes many specimens of types or of authenticated specimens from the herbaria of Ravenel, Curtis, Schweinitz, Fries, Berkeley, Broome and other older mycologists. The series of herbarium specimens of Mexican plants collected in the States of Jalisco, Mexico, Zacatecas and Lower California by Mr. Leon Diquet and presented to the Garden by the Duke de Loubat, has been mounted for the herbarium. Other noteworthy series of Mexican plants recently added are the J. G. Schaffner collection, secured through the purchase of the Vignier Herbarium, and especially rich in the flora of middle Mexico, particularly the state of San Luis Potosi, and the C. L. Smith collection, consisting of specimens from the region of the Isthmus of Tehuantepec and contiguous states in southern Mexico.

In experiments on the diffusion of nuclei, Professor C. Barus has recently found that the nucleus from the same source diffuses into water vapor more than 100 times more rapidly than into benzol or other organic vapors, under otherwise like conditions. The rate in the latter case is .017 cm./sec. The important result follows that the nucleus depends for its size on the medium in which it is suspended.

The phenomena as a whole are closely analogous to the suspension of clay in water and in organic liquids, respectively. The particles are smallest in water or in water vapor, while they have grown to relatively enormous sizes in case of the other liquids or vapors.

MR. HENRY E. KOCH, of the Biological Department of the University of Cincinnati, has recently made a discovery which places color-photography upon a scientific basis. He has found that certain aniline dyes with which a sensitive plate or paper may be impregnated are sensitive to the light which changes the silver salts; the aniline dye changes to the color of the object which is being photographed. The natural color thus reproduced in the plate or film may be rendered permanent by a fixing process, in the same way that the black and white picture in the silver salt is rendered permanent by the fixing bath.

At the February meeting of the Council of the American Institute of Electrical Engineers, the following resolution, reported by the Committee on Standardization, was unanimously accepted and adopted:

Whereas, The metric system of weights and measures offers very great advantages by its simplicity, consistency and convenience in every-day use, as well as in all engineering calculations and computations, and

Whereas, These advantages have already been demonstrated by the universal adoption and entirely successful use of the metric system in all civilized countries except Great Britain and the United States, and

Whereas, All the electrical units in universal use, such as the volt, ampere, ohm, watt, etc., are metric units, and

Whereas, The industrial use of these electrical units would be much facilitated by the general adoption of the metric system,

Resolved, That this committee unanimously recommends the introduction of the metric system into general use in the United States at as early a date as possible without undue hardship to the industrial interests involved.

Resolved, That this committee favors such legislation by Congress as shall secure the adoption of the metric system by each department of the National Government as speedily as may be consistent with the public welfare.

WE learn from *Nature* that the ninth meet-

ing of the Australasian Association for the Advancement of Science was held at Hobart on January 8-16, under the presidency of Captain F. W. Hutton, F.R.S., the subject of whose presidential address was 'Evolution and its Teaching.' The presidents of the sections and the subjects of their addresses were as follows: Mr. R. W. Chapman (Astronomy, Mathematics, Physics and Mechanics), 'Tidal Theory and its Application'; Professor A. M. A. Mica-Smith (Chemistry and Mineralogy), 'The Study of the Chemistry of the Air, and Whither it has Led'; Professor T. S. Hall (Geology and Paleontology), 'The Possibility of Detailed Correlation of Australian Formations with those of the Mother Hemisphere'; Professor W. B. Benham (Biology), 'Earthworms and Paleo-geography'; Rev. Geo. Brown (Geography), 'The Pacific, East and West'; Mr. T. A. Coghlan (Economic and Social Science and Statistics), 'The Statistical Question'; Dr. W. E. Roth (Ethnology and Anthropology), 'On the Games, Sports and Amusements of the North Queensland Aborigines'; Sir T. Fitzgerald (Sanitary Science and Hygiene), 'The Nature of Diseases'; Professor A. Wall (Mental Science and Education), 'Poetry as a Factor in Education'; Mr. P. Oakden (Architecture and Engineering), no title announced. Many papers were read in each of the sections, and the titles in the official program show that a large proportion was of wide scientific interest. The handbook prepared for the use of the members contains a short historical sketch of Tasmania, and essays on the natural history of the country.

A LARGE number of members of the Royal Society and others have addressed to King Edward the following petition:

That Whereas His Majesty King Charles II., in order to prove that His Majesty did 'look with favour upon all forms of Learning' and particularly 'Philosophical Studies,' and in order that such Learning and Studies should 'shine conspicuously' among his People, did by Charters granted in the 14th, 15th and 21st years of His Reign found the Royal Society for the promotion of such Learning and Studies.

And Whereas the progress of Learning and Philosophical Studies has been great, and scientific methods of inquiry have been applied to many

new fields of knowledge since the time of His Majesty King Charles II.

And Whereas Your Petitioners are of opinion that it is desirable that all the Intellectual forces of the Realm should be so organised as to promote the greatest advancement of Scientific Studies within the Empire

And Whereas a large and influential group of representatives of Studies connected with History, Philosophy and Philology have lately presented a petition to Your Majesty praying to be embodied under Royal Charter as an Academy or like institution

And Whereas Your Petitioners are of opinion that such incorporation can be most efficiently provided for in some relationship to the Royal Society

We Your Petitioners humbly pray that Your Majesty may be graciously pleased to cause an Inquiry to be made with a view of instituting a general and formal organisation of all the Studies depending upon Scientific Method now carried on similar to that inaugurated for the Philosophical Studies of the 17th century by the Charters of His Majesty King Charles II.

ACCORDING to the New York *Evening Post* Mr. Andrew Carnegie's recent gifts of libraries affect forty-two towns, as follows:

Reno, Nev.	\$15,000	Yankton, S. D.	10,000
Baraboo, Wis. ...	12,000	Berlin, Ont.	15,000
Greensburg, Md.	15,000	Benton Harbor,	
London, O.	10,000	Mich.	15,000
Blue Island, Ill.	15,000	Victoria, B. C.	50,000
Littleton, N. H.	15,000	Little Falls,	
Paris, Ill.	18,000	Minn.	10,000
Maquoketa, Iowa	10,000	Newton, Kans. .	10,000
Redfield, S. D.	10,000	Atlantic, Iowa..	12,500
Denver, Col.	200,000	St. Thomas, Ont.	15,000
Las Vegas, N.M.	10,000	Iowa City, Iowa	25,000
Goderch, Ont. ...	10,000	Beatrice, Nebr.	20,000
Bozeman, Mont.	15,000	Cedar Falls,	
Saratoga, N. Y.	10,000	Iowa	15,000
San Bernardino,		Dennison, Iowa.	10,000
Cal.	15,000	Hampton, Iowa.	10,000
Danville, Ind. ...	10,000	Athol, Mass.	15,000
Nakoma, Ind. ...	20,000	New Albany,	
Santa Rosa, Cal.	20,000	Ind.	35,000
Charlotte, Mich.	10,000	Tipton, Ind.	10,000
Brazil, Ind.	20,000	Mount Clemens,	
Fulton, N. Y. ...	15,000	Mich.	15,000
New Brunswick,		Chicago Heights,	
N. J.	50,000	Ill.	10,000
Oskaloosa, Iowa	\$20,000	Waukesha, Wis.	15,000

A RECENT enumeration gives a total of 1,476 preparations of the brain in the neurologic division of the museum of Cornell University. Of these 402 are from human adults; 207 from fetuses or embryos; 282

from apes, monkeys and lemurs; 400 from other mammals, and 185 from other vertebrates.

THE Italian Government has accepted the offer of a German syndicate to drain the Pontine marshes, which stretch between the mountains and the coast, with a breadth varying from six to eleven miles, at a cost of \$1,000,000. The reclaiming of the marshes is expected to free Rome from malarias. The syndicate has exacted a thirty-year lease of the reclaimed land, which it intends to use for farming and garden purposes.

THE map descriptive of 'Niagara Falls and the river which formed a part of the United States Geological Survey at the Pan-American Exposition is of special interest. Like all the sheets prepared by the Geological Survey, the map shows in great detail the usual features contained on ordinary map sheets and in addition reveals the relief of the country by the use of contours, or lines passing through all points of equal altitude. Of special interest, however, is the short 'Physical History of the Niagara River,' printed on the reverse side of the map, which traces its life history and the work it has done in excavating the deep gorge below the falls in which are located the famous whirlpool and the rapids just above it. It is interesting to note that the stream is described as not one of the old rivers of the earth, but one of comparative youth. The text also discusses the well-known recession of the falls by which they are slowly eating their way, at the present rate of four or five feet a year, back toward Lake Erie, which they will eventually reach. It touches upon the probable age of the river, or the time which has been consumed in the making of the gorge, on the effect which the great ice sheet of the Glacial Period had in changing its course, and on other features in connection with it which are of unusual interest. The description is accompanied by a bird's-eye view of Niagara River, showing the features described in the text. The map is not only an accurate one of the section, but, with its descriptive features, forms an excellent means of studying some of the most striking problems in physical geography. It can be had on application to the Director of the Geolog-

ical Survey, Washington, at the usual price of five cents per sheet.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Duke of Loubat has given the Collège de France an annuity of \$1,200 to found and maintain a professorship for the study of American antiquities. In 1899 he founded a similar professorship in the University of Berlin.

THE Columbian University of Washington, D. C., has just completed plans and let contracts for the erection of a new hospital building and a new medical and dental school on H Street, N. W., between Thirteenth and Fourteenth. The buildings will be colonial in style. The hospital will have a frontage of 60 feet to the south, and the medical school building (50x144 feet) will be five stories high. Large new laboratories thoroughly equipped for modern work, well-lighted lecture and reading rooms will afford excellent facilities for medical and dental students.

THE University of Cincinnati has received a donation of about \$5,000 for the purchase of presses and other machines for the University of Cincinnati Press. Hereafter the University will do all its printing and will print the scientific publications and texts which are published by the teachers in all the departments of the University.

THE regents of the University of Michigan have indorsed the action of the engineering faculty, making it obligatory for students to spend six months between the junior and senior years in practical work.

THE faculty of McGill University has decided to ask the Dominion Government at the present session of Parliament to enact a law inaugurating a five years' course in medicine instead of four as at present.

THE courses offered by the graduate school of Yale University are distributed as follows: Philosophy, 50; social science, history and law, 77; Semitic languages and biblical literature, 59; classical and Indo-Iranian philology, 59; modern languages, 65; physical and natural sciences, 81; mathematics, 29; fine arts, 4; music, 7; physical culture, 3.

THE *Bulletin* of the University of the State of Missouri gives the number of professors and instructors who have attended different universities as follows: Harvard, 15; Yale, 1; Columbia, 2; Johns Hopkins, 8; Virginia, 5; North Carolina, 1; Georgia, 1; Michigan, 3; Wisconsin, 2; California, 1; Stanford, 2; Indiana, 1; Missouri, 22; Dartmouth, 2; Chicago, 5; Miami, 1; Minnesota, 1; Lake Forest, 2; Cincinnati, 1; Clark, 3; Cornell, 6; Williams, 1; Lehigh, 1; DePauw, 2; Ohio, 1; Trinity (Toronto), 1; McGill, 1; Heidelberg, 3; Ecole des Beaux Arts, 1; Paris, 5; Berlin, 10; Halle, 2; Munich, 2; Classical School at Athens, 2; Classical School at Rome, 1; Strassburg, 1; Leipzig, 2; Goettingen, 2; University of London, 2.

OF the three European fellowships conferred at Bryn Mawr College, one has been awarded to Miss Marie Reimer, A.B. (Vassar) for work in chemistry, and one to Miss Harriet Brookes, A.B. (McGill), for work in physics.

MR. R. A. S. REDMAYNE has been appointed professor of mining in the University of Birmingham, and Mr. Thomas Turner, professor of metallurgy.

THE Isaac Newton studentship, Cambridge University, of the value of £250 for the encouragement of study and research in astronomy and physical optics, open to bachelors of arts under the age of 25 years, has been awarded to Mr. T. H. Havelock, B.A., scholar of St. John's College.

MR. J. S. BUDGETT, of Trinity College, has been elected to the Balfour Studentship at Cambridge University. The studentship is tenable for three years and the annual value is about \$1,000.

DR. ERNST BECKMANN, professor of chemistry at the University at Leipzig, has been called to the newly established chair of chemistry at the University of Berlin.

DR. J. PICCARD, professor of chemistry at the University of Basle, and Dr. E. Buguion, professor of anatomy at the University of Lausanne, will this year retire from active teaching.