

were no such palaces of learning nor such armies of students as now characterize university life in Germany. His doctor's thesis presented in 1856 was upon the subject "Contributions to the Circulation of Nitrogen in the Animal Organism." In 1860 Voit was made professor extraordinarius in physiology, and in 1863, at the age of thirty-two, was created professor ordinarius and conservator of the physiological institute at Munich, positions which he held until his death.

At the age of twenty-six Voit had demonstrated that the nitrogen in the excreta of an animal could be used as a measure of the animal's proteid metabolism. At the age of thirty-five (1866) his ideas had led to the construction of the Pettenkofer respiration apparatus, and with Pettenkofer he had determined the amount of metabolism in a healthy person on various diets, during fasting and during work, and also the metabolism in patients suffering from diabetes and leukæmia. These experiments established once for all the principles of nutrition upon a scientific basis. Waves of criticism have broken upon them and left them untouched. Then in his after-life more and more details upon the subject were given to the world. These are to be found throughout the fifty volumes of the *Zeitschrift für Biologie*, of which he was one of the founders. He said last summer: "If I spent my time answering those publications which are only rediscoveries of what I have already shown, I would have nothing else to do."

Voit was always keenly interested in his lectures and his teaching. His joy at a new discovery by any one in his laboratory was inspiring to all who worked there. He was conscientious in every relation in life. An assistant once addressed some flattering remarks to him and received the sharp rejoinder "Es macht nichts *wer* Recht hat, nur dass die Wahrheit herauskommt."

The clinicians Friedrich Müller, F. Moritz, and a son Fritz Voit received their early scientific training in Voit's laboratory, and have carried this knowledge to a wide scope of usefulness in clinical medicine.

Of the physiologists and hygienists who

have belonged to the "Munich school" of Voit may be mentioned Rubner, Lindemann, Straub, Ellinger, Otto Frank, Erwin Voit, Prausnitz, Max Gruber, Cremer, Weinland, Heilner, Atwater and Yandell Henderson.

In the midst of conflict among others concerning his views Voit was always calm, and assumed a waiting attitude, trusting to time for his justification. He deprecated hurried publication of results. His last article gave to the world work accomplished seventeen years before.

Voit was honored as among the highest in his own land, but he would have been a great man in any country. He was one of those spirits whose lives are the heritage of mankind. It only requires knowledge of his work to realize that his fame will grow greater as the years pass by.

GRAHAM LUSK

SCIENTIFIC NOTES AND NEWS

THE council of the senate of Cambridge University has reported the opinion that the university should hold a Darwin celebration in the course of the year 1909. The senate is reminded that Charles Darwin was born on February 12, 1809; and that "The Origin of Species" was published on November 24, 1859. The one hundredth anniversary of the former event and the fiftieth anniversary of the latter will, therefore, fall in the course of the year 1909. The council does not think it advisable, so long beforehand, to enter into any details; but suggests that representatives of universities and other learned bodies, together with distinguished individuals, should receive invitations to visit the university on the occasion. Should this report be confirmed by the senate, the council will appoint a committee to consider the details of the proposed celebration. The week beginning June 20, 1909, appears to the council to be the most suitable time for the celebration.

DR. ROBERT KOCH, the eminent German bacteriologist, expects to visit this country during the spring of the present year. He proposes to rest for a year from his scientific work and has refused all invitations to lecture while in the United States.

PRESIDENT JUDSON closes his last quarterly statement of the condition of the University of Chicago with the following words:

During the current quarter the university has been honored in the person of one of its faculty in recognition of brilliant work of investigation and discovery in the department of physics. Professor A. A. Michelson, head of that department, was awarded the Copley medal by the Royal Society of London. Only one American heretofore, Professor Newcomb, of Washington, has received that medal.

While Professor Michelson was on the ocean on his way to receive this distinguished honor, the official award of the Nobel prizes by the Royal Society of Sweden was announced. Among the awards was one to Professor A. A. Michelson for his discoveries in the measurement and analysis of light. Professor Michelson was obliged to continue his trip from London to Stockholm in order to receive this new and striking evidence of the importance of his tireless and brilliant scientific work. Such recognition of the results of scientific investigation is a renewed incentive to research in all fields of university activity. We, Mr. Michelson's colleagues, unite in felicitations to that modest gentlemen, and, on his return to his home, we hope to extend our greeting and congratulations in a more tangible form.

THE sixty-first birthday of Mr. Thomas A. Edison was celebrated by a dinner, given by the heads of the departments of his laboratory, on February 11.

THE former students and friends of Dudley Allen Sargent, A.M., Sc.D., M.D., director of the Hemenway Gymnasium, Harvard University, have presented him with a bronze medallion. The medallion, designed by Dr. R. Tait McKenzie, has above the face of Dr. Sargent the words "Dudley Allen Sargent, Pioneer in Physical Education, 1907," while on the reverse is a row of five Harvard seals below the words, "A Recognition by his Friends and Students." Two hundred and thirty persons contributed to the medallion fund. A plaster model of the medallion and a bound volume containing the autographs of the contributors to the fund were presented to Dr. Sargent by Dr. Luther Halsey Gulick at the twenty-fifth commencement of the Sargent Normal School

of Physical Training, held in Sanders Theater, June 1, nineteen hundred and seven. The bronze medallion was finished recently and presented to Dr. Sargent. The Sargent Medallion Committee is having struck a limited number of copies of the medal. These are to be presented to President Roosevelt, William Taft, Secretary of War, Major General Bell, Curtis Guild, Governor of Massachusetts, and Booker T. Washington, who were all students under Dr. Sargent.

THE occupation of the Smithsonian table in the Naples Zoological Station has been approved for three months from January 9, 1909, on behalf of Dr. Charles A. Kofoid, associate professor of histology and embryology in the University of California.

DR. E. B. ROSA, physicist, of the Bureau of Standards, has sailed for Europe, where he will spend three or four months in a study of methods for harmonizing standards of light in the gas and electric industries.

W. O. CROSBY, emeritus professor of geology of the Massachusetts Institute of Technology, has returned from Alaska, where he has been engaged in private work since August. He returned by way of Panama in order to see the recent progress on the canal. He is now engaged in work for the New York Metropolitan Water Board.

MR. C. WILLIAM BEEBE, curator of birds in the New York Zoological Park, will sail with Mrs. Beebe on February 20 for Georgetown, British Guiana, for the purpose of spending five weeks in the exploration of some definite section of the Essequibo River. The object will be primarily the study of the rich avifauna of that region under natural conditions, its general aspects and its relations to other classes of the fauna.

PROFESSOR GEORGE D. OLDS, of Amherst College, is to attend the International Congress of Mathematicians to be held in Rome from April 5 to 11.

DR. FORREST SHREVE, associate professor of botany in the Woman's College of Baltimore, has accepted an appointment to the staff of the Desert Botanical Laboratory of the Carnegie Institution at Tucson, Arizona.

DR. R. B. SOSMAN, of the Massachusetts Institute of Technology, formerly connected with the research laboratory of physical chemistry, who received the doctor's degree from the institute last June and who has been for the past year in the office of A. D. Little, of Boston, has accepted a position at the Geophysical Laboratory of the Carnegie Institution in Washington.

MR. C. V. HARTMAN, curator of the ethnological section at the Carnegie Museum in Pittsburg, has received the call to a similar position at the ethnological department of the Riks-museum in Stockholm.

CHUM ZEN CHAN, a graduate of the College of Agriculture of the University of California with the class of 1907, has been made director of the agricultural experiment station at Mukden, Manchuria.

At the annual general meeting of the British Institution of Mechanical Engineers on February 21 the usual council prizes offered for the best papers read before the Graduates' Association during the preceding session were awarded to Mr. H. H. Broughton for his paper "Notes on the design and equipment of electric traveling cranes," and to Mr. A. B. E. Cheeseman for his paper on "Portland cement and the machinery used in its manufacture."

THE second lecture of a series supported by a bequest of James Hamilton to the Smithsonian Institution, known as the Hamilton lectures, will be delivered April 22, at the time of the annual meeting of the National Academy of Sciences in Washington, by Professor George E. Hale, director of the Mount Wilson Solar Observatory, California, on "Some Recent Advances in Our Knowledge of the Sun." The first use of this fund, with accumulated interest, was made in 1905, when Dr. Andrew D. White delivered a lecture on "The Diplomatic Service of the United States with Some Hints toward its Reform."

DR. E. B. TITCHENER, Sage professor of psychology at Cornell University and non-resident professor of psychology at Columbia University for the current year, began on February 17, at Columbia University, a course

of eight lectures on "The Elementary Psychology of Feeling and Attention."

DR. L. O. HOWARD, chief of the Bureau of Entomology, lectured, on February 17, before the New York Academy of Sciences on "Some Recent Discoveries in Insect Parasitism, and the Practical Handling of Parasites." One of the features of the lecture was the description of studies upon, and results as to, exterminating the gypsy moth. The lecture was secured through cooperation with the New York and Brooklyn Entomological Societies.

THE seventh lecture in the Harvey Society course will be delivered by Professor Otto Folin, of the Harvard Medical School at the New York Academy of Medicine on Saturday, February 22, at 8:30 P.M., on "Problems of Chemistry in Hospital Practice."

PROFESSOR A. LAWRENCE ROTCH, director of the Blue Hill Meteorological Observatory, delivered an illustrated lecture on "Sounding the Ocean of Air," before the Stamford Scientific Society, on February 7.

DR. HARVEY W. WILEY, chief of the Bureau of Chemistry, spoke on February 13 at the Boston City Club on "The ethics of the food and drug trade."

DR. L. A. BAUER, director of the department of terrestrial magnetism of the Carnegie Institution, lectured at Columbia University on February 11, on "The Magnetic Survey of the Pacific Ocean."

DR. OSLER, regius professor of medicine at Oxford, presided on February 4 in the Town Hall, when the Lees and Raper memorial lecture was given by Mr. W. McAdam Eccles, F.R.C.S., whose subject was "The Relation of Alcohol to Physical Deterioration and National Efficiency."

A MEMORIAL service for the late Professor O. Lassar was held, January 20, in the amphitheater of his clinic at Berlin under the auspices of the Dermatological Society. Professors Rosenthal and Mayer delivered the main addresses.

WE regret to record the death of M. Albert Loewy, professor of mathematics at the School of Physics and Chemistry at Montsouris.

THE death is also announced of M. A. Lancaster, director of the meteorological department of the Royal Observatory of Belgium at Uccle.

THE Cooper Union recently received a bequest of \$100,000 from the estate of Mr. Willis James, and the City of New York has now transferred to the institute the sixty-ninth Regiment Armory.

MR. L. S. TIFFANY has presented to the University of Chicago for the Department of Geology a valuable collection of invertebrate fossils. This collection was made by Mr. Tiffany's father during a period of some twenty-five or thirty years and at a cost of many thousands of dollars.

THE president of the United States on February 10, sent to the congress the following message:

To the Senate and House of Representatives:

I transmit herewith a report by the Acting Secretary of State covering a note from the Imperial German Ambassador by which is communicated the acceptance by the International Congress on Hygiene and Demography of the invitation extended to it in pursuance of the joint resolution of Congress approved February 26, 1907, to hold its next session at the city of Washington in 1910.

THEODORE ROOSEVELT

THE first regular meeting of the Illinois Academy of Sciences will be held at the James Millikin University, Decatur, Ill., on February 22. In the morning there will be a session for the presentation of papers and in the afternoon a symposium on "The Atmosphere," embracing the following among other aspects: Origin and Maintenance; Chemical Constitution and Activity; Physical Phenomena; Relations to Animal and Vegetable Life; Relations to Human Evolution and to Mental and Physical Efficiency. In the evening Professor A. A. Michelson, of the University of Chicago, will give a lecture complimentary to the citizens of Decatur on "Recent Advances in Spectroscopy."

THE mathematical and physical library of the late Professor A. S. Herschel, F.R.S., and also works from the library of the late Mr. F. Moore, author of books on the Lepidoptera

of India and Ceylon, are offered for sale by Mr. T. Thorp, Guilford, Surrey, England.

WE learn from the *Scottish Geographical Magazine* of the wreck of the *Austral*, the vessel which was taking a party and instruments to set up a meteorological station on Wandel Island. The wreck took place very soon after the vessel left port, and as all the valuable meteorological instruments were lost, the establishment of the new station will be delayed for at least a year. The *Austral* was formerly the *Français*, the vessel of Dr. Charcot's Antarctic expedition.

IT is reported that President Roosevelt will appoint a Pure Food Commission of chemists from various universities, to consider cases of dispute against the rulings of the Department of Agriculture.

THE council of the National Academy of Sciences has passed resolutions in favor of the setting aside of forest reserves in the Appalachian and White Mountains as follows:

WHEREAS: Under the present drain upon the forest the timber supply of the entire United States will be exhausted within twenty years while in the eastern states where no adequate means have been employed to protect the forest the end of the supply is even nearer.

WHEREAS: The headwaters of all important navigable streams to the west of the Mississippi River are now protected by national forests while the Appalachian Mountains, which form the watersheds of many navigable streams of great importance are entirely unprotected and are being damaged to a menacing extent by the wasteful cutting of the forest, unrestricted fires and injudicious clearing;

Resolved, That the council of the National Academy of Sciences heartily favors the extension of the national forest system to the Appalachian Mountains for their protection and permanent utilization;

Resolved, That we urge upon Congress the passage at the present session of a bill to acquire in the Southern Appalachian Mountains and the White Mountains such forest lands as are necessary to protect the navigable streams which have their sources therein, and to make permanent the timber supply of the eastern part of the United States.

A NEW Psycho-neurological Institute, under the direction of Professor Bechterev, was recently opened at St. Petersburg.

THE foundation stone of an Institute for the Study and Prevention of Infant Mortality was laid in Berlin in the presence of the German Empress on December 3.

A CRIMINOLOGICAL INSTITUTE is to be established in connection with the government prison at Buenos Aires. Particular attention will be paid to criminal psychology and forensic psychiatry.

THE seventh meeting of the International Congress of Criminal Anthropology will open at Turin on April 28, under the presidency of Professor Lombroso. Communications relating to the congress should be addressed to the Secretariate of the Congress, Instituto di Medicina Legale, Via Michelangelo, 26, Torino, Italy.

THE city of Paris has placed a building at the disposal of the International Hygienic Institute which is about to be established.

FOR the purpose of promoting the forestry industry in south Manchuria, the Chinese officials have engaged a Japanese expert from Tokyo to act as head master for the proposed school of forests at Mukden for a term of four years, with two Chinese gentlemen as his assistants; but, owing to the lack of funds, the school has not yet been opened.

THE government of Mysore has, according to foreign journals, made public the new rules for regulating the grant of scholarships for scientific research and technical education from the Damodar Dass charities fund. The scholarships will be open to all Indians who have taken with credit a degree in arts, medicine, or engineering in an Indian or other recognized university. Each candidate selected will be given traveling allowance to England or elsewhere from Bangalore on the completion of his course of study or research. He will be allowed, during his stay in England or elsewhere, outside India, a sum of 200*l.* per annum, this allowance to be inclusive of college fees, cost of books, instruments, and boarding charges.

UNIVERSITY AND EDUCATIONAL NEWS

THE contract for the new biological and geological laboratory of Amherst College has been awarded and work will begin when the frost leaves the ground. The building should be completed by January 1, 1909.

MR. CULLOM presented to the senate on February 10 a resolution of the Association of American Universities assembled in convention at the University of Michigan, Ann Arbor, Mich., which was referred to the Committee on Foreign Relations and ordered to be printed in the *Record*, as follows:

WHEREAS: The executive committee of the Latin-American Scientific Congress had determined to make the next congress "Pan-American" instead of "Latin-American"; and

WHEREAS: The Chilean government has extended an invitation to the government of the United States to participate in this congress, to assemble at Santiago, Chile, in December, 1908; and

WHEREAS: This congress will serve to bring the best thought and experience of America to bear on the great problems common to all the republics of this continent and will thus serve to strengthen the ties between the American nations: be it

Resolved by the Association of American Universities assembled in convention at Ann Arbor, Mich., That the Congress of the United States be earnestly requested to make provision for adequate representation at this forthcoming Pan-American Scientific Congress, as recommended in the report of Secretary Root of December 19, 1907, and in the special message of the President of December 21, 1907.

DR. R. W. STIMSON has resigned the presidency of the Connecticut Agricultural College to become president of Smith's Agricultural School, recently established at Northampton, Mass.

C. F. HARDING, a graduate of the electrical engineering department of the Worcester Polytechnic Institute in the class of 1902, has been appointed professor of electrical engineering at Purdue University.

MR. L. BREBANT, M.A. Oxon., has been appointed assistant to the professor of moral philosophy in the University of St. Andrews.