

his botanical attainments to material account, he obtained, through the influence of his friend, Sir Joseph Banks, with George III., the chair of regius professor of botany in this university. It was a bold venture for him to undertake so responsible an office, for he had never lectured, or even attended a course of lectures, and in Glasgow, as in all other universities in the kingdom, the botanical chair was, and had always been, held by a graduate in medicine. Owing to these disqualifications his appointment was naturally unfavorably viewed by the medical faculty of the University. But he had resources that enabled him to overcome all obstacles—familiarity with his subject, devotion to its study, energy, eloquence, a commanding presence, with urbanity of manners, and, above all, the art of making the student love the science he taught. After 20 years of the professorship his father retired and undertook the directorship of the Royal Gardens, Kew. Since that period great changes had been introduced in the method of botanical teaching in all our universities, due, on the one hand, to a vastly advanced comprehension of the structure of plants and of the functions of their organs, and, on the other, to a recognition of the fact that the study of the animal and vegetable kingdoms could not be considered apart. Furthermore, chemistry, physics, and greatly improved microscopes were now necessary for the elucidation of the elementary problems of plant life. The addition of the building in which they were assembled was evidence of the resolve that botany should not fall from its well-earned position. The botanical laboratory would prove an invaluable aid to research under the ægis of its distinguished director, and in that belief he now declared it open.

THE HARVARD CHEMICAL LABORATORY.

PROFESSOR T. W. RICHARDS writes in the last number of the *Harvard Graduate Magazine* in regard to research work, as follows:

“Original investigation, which has added so much to the intellectual life of the Laboratory, continues with unabated vigor. In the last five years about seventy papers have been published by the officers and students in Boylston Hall. These covered a wide range of subjects,

about half of them concerning organic chemistry, and the other half physical and inorganic chemistry. Professor Jackson’s extended researches upon the structure of aromatic substances have yielded in the hands of many students a large number of interesting new compounds and the basis for further generalization upon the mechanism of chemical action. Professor Hill’s precise and detailed study of pyromucic acid has now in part given place to an extremely interesting series of syntheses of the benzol ring. In physical chemistry several comprehensive papers on chemical thermodynamics have appeared, and various phenomena were studied in the Laboratory by both instructors and students. For example, the passage of electricity through gases received attention; modern theory of dissociation was studied in its relation to the sense of taste; a new basis for thermometric standardization has been found; and the fundamental Law of Faraday has been subjected to a verification more rigorous than ever before. The study of the law of definite proportions, the one other chemical law which seems to rank with Faraday’s in unflinching precision, has been steadily continued. In the last ten years the atomic weights of copper, barium, strontium, calcium, zinc, magnesium, cobalt, nickel, uranium and cæsium have all been studied with a care which seems to carry conviction with it. This work has all been handicapped by the inadequate quarters in which it had to be performed, and we now have to face the bitter alternative of being obliged either to turn away graduate students, or else so to crowd them together as to make accurate investigation almost impossible.”

SCIENTIFIC NOTES AND NEWS.

HARVARD UNIVERSITY has conferred the LL D. degree on Dr. H. S. Pritchett, president of the Massachusetts Institute of Technology; on Professor J. H. Van’t Hoff, professor of physical chemistry at the University of Berlin, and on Professor C. S. Sargent, director of the Arnold Arboretum. The honorary M. A. was conferred on Dr. Hugo Münsterberg, professor of psychology, and on Dr. Theobald Smith, professor of comparative pathology. In conferring these last degrees, President Eliot referred to the

recipients as follows: "Professors in this University, not of Harvard nurture, distinguished for productive research—to make them children of the house."

YALE UNIVERSITY, at its commencement exercises last week, conferred the LL.D. on Dr. E. B. Wilson, professor of zoology in Columbia University. It will be remembered that the same degree was given to Professor Wilson by the University of Chicago the previous week. The honorary M.A. was conferred on Mr. Gifford Pinchot, B.A. (Yale, '89), chief of the Bureau of Forestry, U. S. Department of Agriculture.

TRINITY COLLEGE has conferred the LL.D. degree on Professor W. H. Howell, professor of physiology in the Johns Hopkins University, and on Professor F. H. Osborn, professor of zoology in Columbia University and curator in the American Museum of Natural History. It will be remembered that Professors Howell and Osborn gave the chief addresses on the occasion of the dedication of the Hall of Natural History last winter.

BOWDOIN COLLEGE has conferred its LL.D. on Dr. Alpheus S. Packard, professor of zoology and geology at Brown University.

At the recent celebration of its ninth jubilee, the University of Glasgow conferred its LL.D. degree on 120 delegates from various universities and institutions. These included J. Mark Baldwin, professor of psychology at Princeton University; William G. Farlow, professor of cryptogamic botany at Harvard University; Dr. Adolph Meyer, lecturer on psychiatry at Clark University, and R. Mark Wenley, professor of philosophy at the University of Michigan. The foreign men of science on whom the degree was conferred are: Professor Karl Bezold, University of Heidelberg; Professor W. C. Brogger, University of Christiania; Professor Daniel J. Cunningham, Trinity College, Dublin; Professor Nicolas Egoroff, Imperial Military Academy of Medicine, St. Petersburg; Principal George Carey Foster, University College, London; Sir Archibald Geikie; Professor A. A. W. Hubrecht; Professor Kronecker, University of Berne; Dr. Joseph Larmor, St. John's

College, Cambridge; Principal Oliver J. Lodge, University of Birmingham; President James Loudon, University of Toronto; Sir William MacCormac; Professor James G. MacGregor, Nova Scotia; Professor John Perry, Royal College of Science, London; Professor F. York Powell, Oriel College, Oxford; Sir Henry S. Roscoe, Vice-Chancellor of the University of London; Professor Joseph J. Thomson, University of Cambridge; John Isaac Thornycroft, naval architect and engineer.

SURGEON-GENERAL GEORGE M. STERNBERG has left for the Philippine Islands on a tour of inspection.

DR. CH. WARDELL STILES, of the Bureau of Animal Industry, has been appointed a delegate from the U. S. Government to the International Congress of Zoologists which meets at Berlin next August.

PROFESSORS NICHOLAS SENN and D. R. Brower, of the Rush Medical College, University of Chicago, and Professor Jacob Frank, of the Chicago Polyclinic, have left New York for a trip round the world by the way of Siberia. It is expected that only fifty-nine days will be required for the traveling and one month will be spent at stopping places. They have been invited to hold surgical clinics in Moscow and Japan.

MAJOR ROSS, of the Liverpool School of Tropical Medicine, and Dr. Logan Taylor, assistant professor of pathology at Glasgow University, sailed on June 15 from Liverpool for West Africa to continue researches on malaria.

A PARTY from the U. S. Geological Survey, including Mr. W. C. Mendenhall, geologist, and L. E. Reaburn, topographer, have left Dawson for explorations in northern Alaska.

DR. S. WEIR MITCHELL, of Philadelphia, has arrived in California after a trip round the world.

DR. OSCAR UHLWORM, of Cassel, editor of the *Botanisches Centralblatt*, has been appointed director of the German Bureau for the International Catalogue of Scientific Literature.

A WALKER PRIZE, of the Boston Society of Natural History, has been awarded to Mr.

Edward W. Berry, of New York, for a memoir on *Liriodendron*.

PROFESSOR St. JOHN, of Oberlin College, and Professor Nichols, of Dartmouth College, will spend the summer working at Yerkes Observatory.

THE professors of chemistry at Harvard University, Professors Jackson, Hill, Sanger and Richards, gave a dinner to Professor van't Hoff, of the University of Berlin, on June 27. Among the invited guests from a distance were Professor Michael, of Tufts College, and Professor Bancroft, of Cornell University.

THE Rev. Joseph Cook died at Ticonderoga, New York, on June 24. Some years ago Mr. Cook attracted much attention by his Boston Monday lectures on religion and science, published under titles such as 'heredity,' 'biology,' etc.

DR. SVEN HEDIN has returned to Chaklik after a successful journey through the Desert of Gobi. He is now continuing his travels across Thibet.

THE members of the French commission entrusted with the measurement of an arc in Peru arrived at Guayaquil on June 1, and will commence their observations during the present month. They will be joined by M. Gonnessiat, who, a year ago, took charge of the observatory at Quito.

ACCORDING to the N. Y. *Evening Post* E. A. Martel, the French explorer of caverns, whose discoveries underground have attracted much attention, reports that he has found in the department of Hautes Alps a cavity in the form of a 'natural well,' whose depth exceeds that of any other known. He has sounded it to the depth of about 1,027 feet, but the actual bottom has not been reached.

KING CHARLES of Portugal and the members of the Portuguese Cabinet opened at Horta, in the Azore Islands, on June 29, the meteorological observatory in connection with the Weather Bureau at Washington.

IN the fire at Jacksonville, Fla., the herbarium of Mr. A. H. Curtis, containing about 16,000 sheets, was destroyed.

A SECOND Livingstone Exhibition was opened in London, on June 18. In addition to a collection of relics of the great explorer, lent by the Geographical Society and other contributors, there is a display of all kinds of articles conducing to the health or comfort of travelers in uncivilized regions. Not only are the special requirements of travelers represented, such as camp equipment, portable foods, clothing and general outfit, but other sections are devoted to sanitation, house-building and various matters of interest to residents in such regions. In connection with the Exposition a reception was given by the Royal Geographical Society on the eighteenth. During the evening, lectures were given in the council chamber, with the aid of the lantern, by Dr. Cornish, on 'Waves in Air, Water, Sand and Snow'; Dr. Francisco Moreno, on the 'Scenery of Argentina'; Dr. Manson, on 'Recent Malarial Discoveries'; Captain Barker, on the 'Antarctic Ship Discovery'; and Dr. Mills, who exhibited some recent geographical photographs.

AT the last International Congress of Librarians, held at Paris, Mlle. Marie Pellechet established two prizes, of the value respectively of 1,000 and 500 fr. for the best memoirs relating to the insects that destroy books. The memoirs should be sent to M. Henry Martin, secretary of the congress, rue de Sully I, Paris.

THE Rev. W. M. Beauchamp, Syracuse, N. Y., is continuing his series of archeological bulletins, published by the New York State Museum. The sixth bulletin on 'Bone and Horn Articles' is in press, and Mr. Beauchamp is now at work on metallic implements and ornaments. There will be figures of most of the native copper articles known in New York, and Mr. Beauchamp requests collectors of such articles to communicate with him.

THE census returns show the population of France to be about 38,600,000, an increase of 330,000 since 1896. To this small increase Paris and its suburbs contribute 292,000, the greater part of which number is due to foreign immigrants, so that the rest of France gives an increase of only 38,000. Since 1850 the population of France, allowing for alterations of boundaries, has only increased from 35,000,000

to 38,000,000, whereas that of the United Kingdom has risen from 27,000,000 to 41,000,000, Germany from 35,000,000 to 56,000,000, Austria from 30,000,000 to 45,000,000, and Italy from 23,000,000 to 32,000,000.

MAJOR-SURGEON W. C. GORGAS, chief sanitary officer of Havana, has presented his report for May, showing a very gratifying state of affairs in Havana. For the first time in its history, there was not a single case of yellow fever in Havana on June 1, and there was only one death from this disease in the preceding three months. Regarding the two slight outbreaks of yellow fever, Major Gorgas writes: Since March 8 outbreaks of yellow fever have occurred twice. The first time, April 21 and 22, we had two cases; and again, on May 6 and 7, four cases. Each time the infected houses and three or four contiguous houses on every side of the infected house were carefully gone over. Every room in each of these houses was closed and sealed, and insect powder burned in them at the rate of one pound to 1,000 cubic feet. All standing water was drained away where possible, and oiled where it could not be drained. The results look as if the focus of infection at that particular point had been eradicated. In the case of the patient taken sick March 8, after our disinfection, we went forty-two days till the next case. Then an outbreak occurred, April 21 and 22. We again disinfected, and went fifteen days till the next cases, May 6 and 7. We again disinfected, and have gone twenty-four days without a case. I am more particularly impressed by these figures, as we commenced our systematic destruction about the middle of February. Formerly we paid no particular attention to the mosquito, merely disinfecting for yellow fever, as we do for other infectious diseases. The only part of the process that killed the mosquito was the formaline used in one or two infected rooms.

THE Medical Society of the State of California has passed the following resolution:

Whereas, It has been shown by our local bacteriologists, and by the Commission sent by the United States Government, that the bubonic plague has existed in San Francisco, and probably does at the present time; therefore, be it

Resolved, That the Medical Society of the State of California express its confidence that the San Francisco Board of Health, the State Board of Health, and the United States Commission will be able to watch the disease, and to take proper measures for its suppression.

THE Imperial Russian Association of Fisheries will hold an international exposition in February and March, 1902, at St. Petersburg, for the purpose of showing the condition of the fresh and salt water fisheries of the world. The expense of the exposition will be defrayed by the association, the crown, the municipal government, private contributions, and by charges for exhibition space and for the admission of visitors. Premiums will be awarded in the form of gold, silver and bronze medals, diplomas of honor and money prizes. The exposition will have nine departments, as follows: (1) Fisheries in general; (2) salt and fresh water fisheries; (3) implements used in the fisheries industry; (4) products of the fisheries; (5) manner and means for preserving fish; (6) arrangement of fish hatcheries; (7) fishing sport; (8) aquariums and their inmates; (9) scientific researches concerning the lives of fishes, etc.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. J. PIERPONT MORGAN has undertaken to erect for the Harvard Medical School three new buildings at an estimated cost of \$1,000,000. They are to be a memorial to his father, Mr. J. S. Morgan, who began his business career in Boston. This great gift was the result of an interview with Professors H. P. Bowditch and J. C. Warren last winter, but was communicated by cable from England at the recent commencement exercises. The Harvard Medical School can now be removed from its present site in Boston to Brookline, where twenty-one acres of land have been secured. The three buildings to be erected are for administration, for anatomy, histology and embryology, and for physiology and physiological chemistry.

It was announced at the recent commencement exercises of Yale University that it was expected that the bicentennial fund of \$21,000,000 would be collected by next autumn. The