

form, arrangement of twigs, bark, lenticels, buds, etc., and this is followed by somewhat more than 160 pages describing the species of trees arranged according to winter characters. Following this is a systematic synopsis of the species, arranged in their appropriate families. A short bibliography and a full index complete the volume of nearly 300 small octavo pages. The work is very freely illustrated with drawings or half-tones of twigs, buds, hairs, sections of buds, twigs, bark and wood.

CHARLES E. BESSEY.

THE UNIVERSITY OF NEBRASKA.

#### SCIENTIFIC NOTES AND NEWS.

THE American Association for the Advancement of Science and the national scientific societies affiliated with it are this week holding, in New York City, a meeting which promises to be one of the most important and largest gatherings of American men of science. Programs of the meetings have been printed here, and there is printed above the address of the retiring president of the association, Dr. C. M. Woodward, of Washington University. There will be published in the next and succeeding issues of *SCIENCE* full reports of the proceedings.

PROFESSOR J. A. BOWNOCKER, of the State University, has been appointed state geologist of Ohio to succeed Professor Edward Orton, Jr., resigned.

M. VIDAL DE LA BLACHE, professor of geography at the Sorbonne, has been elected a member of the Paris Academy of Sciences in the room of the late Albert Sorel.

MAJOR EDGAR A. MEARNS, known for his important contributions to natural history, who has been chief surgeon of the department of Mindanao, has been relieved from duty in the Philippines and will proceed to the United States.

DR. ALEXANDER GRAHAM BELL delivered an illustrated address before the Washington Academy of Sciences on December 13 'On Aerial Locomotion, with a few Notes of Progress in the Construction of an Aerodrome.' The address was discussed by Pro-

fessor A. F. Zahm, of the Catholic University, Washington, D. C., and Mr. C. M. Manly, of New York City, formerly assistant to the late Secretary Langley.

PROFESSOR R. S. CHITTENDEN, of Yale University, will deliver a series of lectures next spring before the faculty and students of the College of Science of the University of Illinois. The general subject of the lectures will be the physiology of nutrition.

ON Monday evenings in February and March Professor Henry Edward Crampton, of Columbia University, will deliver a series of lectures upon 'The Doctrine of Evolution: its Basis and its Scope,' at Cooper Union.

THE first public lecture of the winter will be delivered in the Academy of Medicine, New York City, on Saturday evening, December 29. The lecturer will be Dr. Wilfred T. Grenfell, C.M.G., physician to the missions of the Labrador coast, who will take for his subject, 'The Work of a Labrador Doctor.'

A MAGNETIC survey of Mexico is now in progress under the joint auspices of the Mexican Government and the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. The Mexican Government has two parties in the field under the direction of the Observatorio Astronomico Nacional Mexicano, Engineer Señor Abel Dias Covarrubias having charge of the eastern party and Señor Manuel Moreno y Anda being in charge of the western party, embracing the Pacific Coast from Manzanillo to Guaymas, inclusive of Lower California. The Carnegie Institution observer, Mr. J. P. Ault, will confine his operations to the part of Mexico north of the 25th parallel, upon the completion of which he will then proceed to Campeche, Yucatan and the Central American countries. The early completion of the general magnetic survey of Mexico being thus assured, it will be possible within the next year to construct accurate magnetic maps for the region between the parallels of latitude 20° and 49° North and meridians of longitude 65° and 125° West of Greenwich.

ON the twenty-first of August last Professor Olof Hammarsten was sixty-five years

of age and in accordance with the laws of Sweden retired from the chair of physiological chemistry at the University of Upsala. A large volume, a 'Festschrift,' containing twenty-two papers on physiological and biochemical subjects had been prepared for the occasion by the friends and former pupils of Professor Hammarsten and the day was widely observed throughout the Scandinavian countries. Professor Hammarsten has been a teacher in the University of Upsala for thirty-seven years and his activity as an investigator dates from 1866. His most noted contributions deal with the coagulation of milk and of blood, with the chemistry of bile and the nature of mucin. Within each of these fields his keen observations and accurate descriptions serve as landmarks, the accuracy of which has never been successfully questioned.

At its recent meeting in Mexico City the American Public Health Association elected the following officers: President, Dr. Domingo Orvañanos, Mexico; vice-presidents, Dr. Quitman Kohnke, New Orleans; Dr. R. M. Simpson, Winnipeg; Dr. G. T. Swartz, Providence; secretary, Dr. C. O. Probst, Columbus, Ohio; treasurer, Dr. Frank Wright, New Haven. Atlantic City, N. J., was selected as the place of meeting for 1907.

A TABLET has been placed in the rotunda of Memorial Hall, Yale University, to the memory of Elias Loomis, LL.D., who was professor of natural philosophy and astronomy in the college from 1860 to 1889, the year of his death. The tablet reads:—"In grateful remembrance of Elias Loomis, LL.D., who was graduated in 1830 from Yale College and twenty-nine years here served—1860-1889. An exact scholar, an astronomer of wide repute, in meteorology a pioneer, and a large benefactor of this university. This tablet is placed by a few of his old students to keep fresh the memory of the man and his teaching. 1906."

THE Cartwright prize of the Association of the Alumni of the College of Physicians and Surgeons of Columbia University will be awarded at commencement. This prize, which is of the value of \$500, is open to general

competition for an essay containing original investigations in the medical sciences. Further information can be obtained from Dr. H. E. Hale, secretary of the association, 752 West End Avenue, New York City.

THE University of Michigan has come into possession of a tract of land that with proper attention may be developed into a garden meeting all the requirements of the present-day European botanic gardens. This tract of land has been deeded by Dr. Walter H. Nichols, '91, and Mrs. Esther B. C. Nichols, '94. It comprises about thirty acres, and adjoins Forest Hill Cemetery on the east, having a frontage of about fifteen rods on Geddes Avenue. The land is separated from the Huron River by an approximately equal area owned by the city of Ann Arbor. By an agreement entered into by the regents of the university and the council of the city of Ann Arbor, the two pieces of land mentioned are to be developed as one, thus insuring a garden and park of at least sixty acres. This area will not make one of the largest gardens in the world, but it will make one of the large gardens of the world. It will be the same size as the St. Louis and Edinburgh gardens, nearly as large as the Paris garden, but much smaller than the New York garden, the Arnold Arboretum of Harvard University, the Kew gardens of England and the Buitenzorg garden maintained by Holland on the island of Java, each of which has over 200 acres of land, the last 1,100 acres. The following four aims for its use will be observed in the development of the garden: (1) teaching, in which students are instructed in the various orders and functions of plants; (2) scientific, in which genetic relationship is studied and experimental work is carried on; (3) economic, in which collections of medicinal and economic plants are made, and the effect of horticulture and agriculture is shown, and (4) esthetic and popularly educational, in which landscape effects are introduced and special provision is made to make the plantings, the drives and walks of interest and value to the public.

MEASURES have been taken by the Connecticut Academy of Arts and Sciences to affiliate

with Yale University. At a recent meeting it was voted that the academy was willing to enter into an agreement with Yale. The gist of the proposed agreement is that the university will pay to the academy the sum of \$1,500 annually toward defraying the expenses of publishing the 'Transactions,' which will hereafter be issued under the title of 'Publications of Yale University.' The academy, on its part, will endeavor to increase its membership, and agrees to give adequate representation on its board of officers to the various departments of study in the university that may wish to avail themselves of the opportunity to publish scientific and literary papers.

THE American Public Health Association at its thirty-fourth annual meeting held this month in Mexico City, passed the following resolutions:

WHEREAS, A correct registration of births, marriages and deaths is necessary to indicate not only the natural increase of population, but also the measure of the health conditions and the effectiveness of sanitary operations in any country.

WHEREAS, With the increase in numbers, wealth and age of the populations of the several states and provinces, the necessity for evidence of births, marriages and deaths in cases of wills, pensions, insurance, crimes, etc., becomes daily of increasing urgency.

WHEREAS, Comparisons of the health conditions of different countries and districts and climates is only possible through the existence and study of such records.

WHEREAS, International comity and treaty stipulations not infrequently involve agreements touching the transmission of records relating to the births, marriages or deaths of individuals traveling or residing in foreign countries; and

WHEREAS, Such registration is imperfect or wholly wanting in some of the states of the countries registered in this Association, therefore, be it

*Resolved*, That the secretary of this association be instructed to transmit a copy of this resolution to the governors and boards of health of such states and provinces urging the desirability of effective legislation on this subject.

WHEREAS, The American Public Health Association is of the opinion, and has heretofore so expressed itself, that public health matters confronting the four countries embraced in this association can only be adequately administered by extending the powers and duties of their several chief executive and administrative health officers, and

WHEREAS, This association believes that such questions can only be satisfactorily dealt with by

the establishment of a national department of health with a cabinet minister at its head in each country.

Therefore, this association, with a view to prosecute so desirable an end creates a committee consisting of three members from each of the four countries represented in the association and to be nominated by the president, the first-named member for each country to be chairman of that subcommittee and the chairman of the subcommittee of the United States to be its general chairman. This committee shall formulate what in the opinion of the Association should be the extent of the work, powers and duties of a national department of health and the subcommittee of any of the four countries shall take any steps deemed practicable by it to carry out the purpose of this resolution, and to this end be empowered to enlarge its committee as it may deem proper.

#### UNIVERSITY AND EDUCATIONAL NEWS.

COLUMBIA UNIVERSITY and Barnard College will receive \$10,000 each under the will of Mrs. Annie P. Burgess. Dr. Daniel M. Burgess, her husband, will receive a life interest in the residuary estate, which will ultimately be divided into three equal parts, one of which will go to Columbia University, one to Barnard College, and the third to Hamilton College.

PLANS have been drawn for the new biological and geological building of Amherst College, made possible by a \$75,000 gift from Mr. Andrew Carnegie, and an equivalent amount raised by alumni and friends.

A CLASS in general chemistry has been opened for women at Evening High School No. 73, on East Forty-sixth Street, between Second and Third Avenues, New York City. The class, which is conducted by Miss Rose Levy, is open every week-day evening except Friday and Saturday, from 7:30 to 9:30 o'clock, and is free to all who have had a public school education.

MR. A. G. TANSLEY, M.A., of Trinity College, Cambridge, assistant professor of botany at University College, London, and editor of the *New Phytologist*, has been appointed lecturer in botany in succession to Mr. A. C. Seward, who has succeeded the late Professor Marshall Ward in the chair of botany.