

of the hose under heavy duty has shown the value of these examinations.

In the case of lubricating oils, also, the contracts are let to the lowest bidder whose oil conforms to the specifications of the bureau. At one time, 26 samples of oil were rejected, and it was necessary to advertise for new bids. The second set of samples were practically all up to the requirements.

The 1,164 samples examined during the past year can not all be mentioned, but here are a few that were rejected as inferior: paint, with over 20 per cent. gasoline; sand, dirty, not well graded, and unsuitable; anti-freezing compound, guaranteed free from calcium chloride, yet found on analysis to be composed entirely of calcium chloride and water; marble cleaner, high in price, and consisting entirely of washing soda; woolen blankets, supposed to contain not more than 15 per cent. of cotton, yet shown on analysis to have 30 per cent.; and sulphuric acid, containing such a high percentage of iron that it would have ruined the expensive storage batteries of the fire alarm telegraph system.

The services of the bureau are, for the most part, accepted in a cooperative spirit by dealers and manufacturers. Its reports are frequently the first analyses the dealers have seen of their products, and they have shown much interest in the results and have tried to meet the specifications. The work of the bureau has increased 80 per cent. since last year. The city departments are rapidly taking advantage of the laboratory, and the coming year will undoubtedly show a big increase in the variety, as well as in the volume, of the work submitted.

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#### THE RETIREMENT OF CHARLES HORTON PECK

THE regents of the University of the State of New York on the retirement of Charles H. Peck from the position of New York State botanist have adopted the following minute:

The service rendered to the state by Charles Horton Peck, D.Sc., who has just retired from his position as state botanist, has been extraordinary in its fidelity, assiduity and productiveness. Dr.

Peck entered the staff of the State Museum as botanist in 1867, and from that date to the present, his service has been continuous—a period of 48 years. In 1883 the position of state botanist was created and he has been its only incumbent.

The nearly half century of his scientific activity became an epoch in the science of botany in America, by virtue of the extensive contributions which he made, not alone to the knowledge of the flora of New York but specially through his almost pioneer investigations among the fungi. His researches in this field vastly increased the sum of knowledge and established an orderly and rational classification so that his published papers, issued in the reports of the state museum, are indispensable to any student of these forms of life. The number of species discovered and described by him are counted by thousands and the additions made through his efforts to the state herbarium are so extensive that this collection of plants is to-day among the largest on the continent and of great scientific worth. By common consent of his colleagues Dr. Peck has long been recognized as the ultimate authority in mycology—the field of his special labors.

In view of these services whose value to the state can not be briefly estimated or readily expressed, the regents take this occasion to record, with their regret that the exactions of time have impelled him to retire from the service of the university and the state, their congratulations to Dr. Peck upon a life well rounded and a work well done, with their assurance of continued interest and deep regard for his welfare during the years that may remain.

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#### SCIENTIFIC NOTES AND NEWS

THE annual meeting of the Wesleyan University Club of New York City, on January 28, was in honor of the fiftieth anniversary of the graduation of Dr. William North Rice, professor of geology.

DR. ROBERT H. RICHARDS, professor emeritus in the Massachusetts Institute of Technology, has been awarded the gold medal of the Mining and Metallurgical Society of America in recognition of his services in the advancement of the art of ore dressing.

PROFESSOR ISAAH BOWMAN, now in charge of geography at Yale University, will at the end of the current academic year on about

July 1 remove to New York and join the staff of the American Geographical Society as director of the society's work and librarian. The geographers of the country generally will doubtless be glad to hear that this society, whose activities are constantly widening, have been able to enlist the services of Professor Bowman in the promotion of its future work.

PROFESSOR CHARLES P. BERKEY, of the department of geology, Columbia University, has been appointed as an expert to select, classify and preserve borings taken from the sites of buildings in all parts of New York City, and to prepare geologic maps of the city. The appointment comes from the board of estimate.

THE secretary of the Smithsonian Institution, with the approval of the secretary of agriculture, has appointed Dr. Charles H. T. Townsend to the honorary position of custodian of *Muscoid diptera*, in the United States National Museum.

W. L. DISTANT has resigned the editorship of the *Zoologist*.

DR. VIKTOR BÖHMERT, formerly professor of political economy and statistics at Dresden, has celebrated the sixtieth anniversary of his doctorate.

DR. JULIUS BERNSTEIN, formerly professor of physiology at Halle, has celebrated his seventy-fifth birthday.

THE council of the Geological Society, London, has this year made the following awards of medals and funds: Wollaston medal, Professor T. W. Edgeworth David, C.M.G., F.R.S.; Murchison medal, Professor W. W. Watts, F.R.S.; Lyell medal, Professor E. J. Garwood, F.R.S.; Bigsby medal, Mr. H. H. Hayden; Prestwich medal, Professor Emile Cartailhac (Toulouse); Wollaston Fund, Mr. C. B. Wedd; Murchison Fund, Mr. D. C. Evans; Lyell Fund, Mr. John Parkinson and Dr. L. Moysey; Barlow-Jameson Fund, Mr. J. G. Hamling.

THE council of the New York Academy of Medicine for 1915 is composed of the following members: Dr. Walter B. James, presi-

dent; Dr. L. Emmet Holt, Dr. S. S. Goldwater and Dr. Edward D. Fisher, vice-presidents; Dr. Charles F. Adams, recording secretary; Dr. D. Bryson Delavan, corresponding secretary; Dr. Reginald H. Sayre, treasurer; Dr. A. Alexander Smith, Dr. Charles L. Dana, Dr. John H. Huddleston, Dr. W. Gilman Thompson and Dr. Wisner R. Townend, trustees; Dr. Floyd M. Crandall, chairman of the Committee on Admissions; Dr. Thomas L. Stedman, chairman of the Committee on Library; Dr. Robert H. Halsey, assistant secretary; Dr. A. B. Judson, statistical secretary; Dr. Charles Mallory Williams, executive librarian.

A COMMITTEE on the Biological Station, of the University of Michigan, has been appointed, consisting of Professor Gleason, director of the biological station, chairman; Professor Reighard, head of the department of zoology; Professor Newcomb, head of the department of botany; Professor Guthe and Professor Kraus, deans of the graduate school, and the summer school, to consider all questions of policy, budget, staff, equipment, instruction and other matters pertaining to the welfare of the station.

PROFESSOR HENRY E. CRAMPTON, of the department of zoology, Columbia University, is spending a month in Porto Rico in the interest of the natural history survey of that island which is being conducted by the New York Academy of Sciences.

THE Pennsylvania chapter of the Society of Sigma Xi met on January 13. Professor Lightner Witmer, director of the university psychological laboratory and clinic, presided. Supper was served in Houston Hall. Members of the psychological department later gave a demonstration of experimental work in psychology and Professor Witmer presented a paper on "Psychology as a Department of Instruction."

DR. HENRY S. DRINKER, president of Lehigh University and the American Forestry Association, delivered an address at the University of Illinois on January 18, on "The Conservation of Our National Resources."

DR. FELICE FERRERO will lecture at New York University on February 19 on "Galileo and the Struggle between the Old Science and the New."

AN illustrated lecture was given on January 12, 1915, by Mr. William Bowie, inspector of Geodetic Work, U. S. Coast and Geodetic Survey, Washington, D. C., before the Engineering Club of Northwestern University, Evanston, Ill. The subject of the lecture was "Primary Triangulation and Precise Levelling."

MR. J. C. THORPE, formerly professor in the engineering faculty of the University of Illinois, gave recently there a series of four illustrated lectures on the automobile.

DR. JAGADIS CHUNDER BOSE, of Presidency College, Calcutta, gave a popular lecture on "Plant Autographs and their Revelations" at the University of Wisconsin on Friday, January 22, 1915, under the joint auspices of the Society of the Sigma Xi and the Science Club of the University of Wisconsin. A smoker at the University Club in honor of Dr. Bose followed the lecture.

THE monument on Mount Mitchell, erected twenty-six years ago in memory of Professor Elisha Mitchell, for whom the mountain was named, has been destroyed by dynamite. It is not known who committed the act. Professor Mitchell, a member of the faculty of the University of North Carolina, established the height of the peak as 6,711 feet. He eventually lost his life while exploring the mountain.

A MEMORIAL meeting in honor of Albert Smith Bickmore was held in the American Museum of Natural History on January 29, when the program included addresses by President Henry Fairfield Osborn, Mr. Joseph H. Choate, Mr. Cleveland H. Dodge, Dr. John M. Clarke and Mr. L. P. Gratacap. Professor Bickmore was in large measure responsible for the founding of the American Museum and was a leader in its educational work.

AT the recent annual public session of the Académie de médecine, Paris, the family of

Pasteur presented to the academy a portrait bust of Pasteur by Paul Dubois.

DR. CYRUS FOGG BRACKETT, professor emeritus of physics in Princeton University, died on January 29, in his eighty-second year.

DR. BENJAMIN SHARP, formerly corresponding secretary of the Philadelphia Academy of Natural Sciences and professor of invertebrate zoology there and in the University of Pennsylvania, died on January 24, at Morehead, N. C., aged fifty-six years.

DR. JULIUS WEEREN, formerly professor of metallurgy in the Berlin Technical School, has died at the age of eighty-three years.

THE death is also announced of Dr. Rudolf Fischer, director of the Coburg Museum of Natural History, and of Dr. Lothar von Frankl-Hochwart, professor of pathology of the nervous system at the University of Vienna.

AMONG those reported killed in the war are: Dr. Max Brandt, assistant in the Botanical Museum at Berlin-Dahlem; Dr. Wilhelm Schneider, assistant in the Agricultural Institute at Giessen; Dr. Werner Hirschfeldt, assistant in the Industrial Museum at Stuttgart, and Dr. Karl Pfarr, professor of mathematics and physics in the Vienna Industrial Academy.

IN answer to the manifesto of the German intellectuals, which is considered as unifying German culture and German militarism, La Société Nationale d'Acclimatation de France has decided to remove from its list of members all Germans and Austrians.

THE board of trustees of the University of Illinois has given the sum of five hundred dollars to the fund inaugurated for the purpose of erecting a laboratory at Rothamsted in commemoration of the centenary of the birth of Lawes in 1814 and of Gilbert in 1817.

THE will of Alexander A. McKay, of Chicago, bequeaths \$100,000 to the Art Institute for the maintenance and enlargement of the Munger collection of paintings, \$100,000 to the Home for Destitute Crippled Children and \$100,000 to the Mary Thomson Hospital for women and children.

At the exercises held in the Engineering Societies Building, New York, on January 27, in connection with the inauguration of the Engineering Foundation, it was announced that the initial gift had been made by Mr. Ambrose Swasey, past-president of the American Society of Mechanical Engineers, who gave \$200,000 for "the advancement of the engineering arts and sciences in all their branches to the greatest good of the engineering profession and for the benefit of mankind." Addresses were made by Mr. Gano Dunn, president of the United Engineering Society; by Dr. Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching; by Dr. Robert W. Hunt, past-president of the American Institute of Mining Engineers, and by Dr. Alexander C. Humphreys, past-president of the American Society of Mechanical Engineers and president of the Stevens Institute of Technology. The administration of the fund will be intrusted to the Engineering Foundation Board, elected by the trustees of the United Engineering Society and composed of eleven members, nine from the American Society of Civil Engineers, the American Institute of Mining Engineers, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers, and two members chosen at large.

A JOINT meeting of Section G (botany) of the American Association for the Advancement of Science with the Botanical Society of America and the American Phytopathological Society was held in Philadelphia at 2 P.M., December 29, 1914. Vice-president G. P. Clinton presided. The following officers were elected. For member of the sectional committee for five years, C. S. Gager; for one year, A. D. Selby; for member of the council, L. R. Jones; for member of the general committee, W. L. Bray. The sectional committee recommended, and the association elected, W. A. Setchell as vice-president. The following papers were read:

Address of the retiring vice-president, "The Economic Trend in Botany," by H. C. Cowles.

"Foliar Evidence in Regard to the Ancestry and Early Climatic Environment of the Angiosperms"

(illustrated by lantern slides), by E. W. Sinnott and I. W. Bailey.

"Physiological Eccentricities of the Blueberry Plant" (illustrated by lantern slides), by F. V. Coville.

"Plant Autographs" (illustrated by lantern slides and experiments), by J. C. Bose.

THE twenty-seventh annual meeting of the American Association of Economic Entomologists was held at the University of Pennsylvania, December 27 to 31, 1914. The address of the president, Dr. H. T. Fernald, was delivered at the first session and the program was crowded with over forty papers, all of which were of special interest to economic workers. The section of Apiary Inspectors met at 8 P.M. on December 27 and the Section of Horticultural Inspection held its sessions at 8 P.M. on December 28 and 10 A.M. on December 29. Many papers of interest were presented at these sessions and discussions as to methods and the present status of inspection work followed. A draft of a uniform state law covering nursery and orchard inspection was favorably considered. The next annual meeting will be held at Columbus, Ohio, in connection with the annual meeting of the American Association for the Advancement of Science and the executive committee was directed to call a special meeting at San Francisco during the summer. The officers for 1915 were elected as follows: President, Professor Glenn W. Herick, Ithaca, N. Y.; First Vice-president, Professor R. A. Cooley, Bozeman, Mont.; Second Vice-president, Professor W. E. Rumsey, Morgantown, W. Va.; Third Vice-president, Dr. E. F. Phillips, Washington, D. C.; Secretary, A. F. Burgess, Melrose Highlands, Mass. Professor J. G. Sanders, Madison, Wis., is secretary of the Section of Horticultural Inspection and Mr. N. E. Shaw, Columbus, Ohio, secretary of the Section on Apiary Inspection. A full report of the meeting will be published in the *Journal of Economic Entomology*.

A COLLECTION of Cretaceous fossils has been purchased by the department of geology and invertebrate paleontology of the American Museum of Natural History from Dr. A. Schrammen, of Hildesheim, Germany. It con-

sists of eleven hundred species of invertebrates represented by four thousand specimens which were collected from some fifty localities and fourteen geological horizons in the upper and lower Cretaceous beds of northwest Germany. The phyla and sub-phyla represented are the foraminifera, spongia, hydrozoa, anthozoa, echinoidea, annelida, brachiopoda, gastropoda, pelecypoda and cephalopoda. Among the pelecypoda and cephalopoda are to be found the type specimens of Wolleman in his work on the Cretaceous of Misburg and Nettlingen. The most valuable portion of the collection is the large number of types of siliceous sponges from the Mucronaten and Quadraten Senonian strata.

THE free lecture course of the Ottawa Field Naturalists' Club opened on November 23, with exhibits and addresses by members, in the Normal School Assembly Hall. The remainder of the program is as follows:

December 8.—"The New Zealand Peripatus—the most Ancient and Wonderful of Living Animals," by Professor E. E. Prince, Dominion commissioner of fisheries, Ottawa.

January 12.—"The Royal Botanic Gardens, Kew," by Professor R. B. Thomson, Botanical Laboratory, University of Toronto.

January 26.—"The Indians of the West Coast," by Dr. Edward Sapir, department of anthropology, Geological Survey, Ottawa.

February 9.—"Fossils," by Mr. L. D. Burling, Geological Survey, Ottawa.

February 23.—"Milk," by Mr. J. H. Grisdale, Director Experimental Farm, Ottawa.

March 9.—"Some Interesting Canadian Birds," by Dr. M. Y. Williams, Geological Survey, Ottawa.

March 23.—Annual meeting and presidential address: "The Habits of Insects in Relation to their Control," by Mr. Arthur Gibson, entomological branch, Department of Agriculture, Ottawa.

The first four meetings are at the Normal School and the last four in cooperation with the Carnegie Library in its Assembly Hall.

MR. HENRY S. WELLCOME, founder of the Wellcome Bureau of Scientific Research, in London, has announced that the bureau will provide the sum of £2,000 to be distributed in the form of prizes for the best plans and designs of a body for, and improvements in, field

motor-ambulances. The competing designs, which may be from citizens of any nation, must be received by the commission not later than June 30. Details may be obtained from the secretary of the Ambulance Construction Commission, 10 Henrietta Street, Cavendish Square, London, W.

THE *Journal* of the American Medical Association states that the New York state hospital commission which is charged with the supervision and control of the state hospitals for the insane is planning a campaign of prevention. During the past year 6,061 patients were received at the state hospitals, of whom about one quarter owed their breakdown to causes largely under their control. The plans of the commission comprise a series of short illustrated talks on mental hygiene to be delivered in different parts of the state, showing to the public the economic burden imposed on the state through insanity; the causes and prevention of insanity, and the problems of faulty heredity and environment. The plan also includes the giving of assistance to individuals in the form of advice as to how to obtain proper medical treatment and advice as to the maintenance of mental hygiene. The teaching and pathological branch of the service will be under the direction of Dr. August Hoch, New York City. The lectures will be given under the direction of the commission, with the approval of Health Commissioner Biggs.

THE spreading of rabies by infected coyotes among cattle grazing in the national forests has assumed a grave aspect, according to a report received by the forest service from the district forester in charge of the forests in Washington and Oregon. Numerous townships in eastern Oregon, it is reported, have ordered that all dogs be muzzled, lest those that have been bitten by rabid coyotes develop hydrophobia and attack human beings or domestic animals. Efforts are being made by the state authorities of Oregon to stop the spread of hydrophobia by this means and officers of the forest service are cooperating in attempts to kill off the coyotes. In one county alone a loss of three hundred head of cattle is charged to rabid coyotes.