

From all sections of the country delegates of the leading scientific, medical, educational, social and civic organizations came to attend the ceremonies and pay tribute to the institution.

Representing the latest in architecture, design and equipment, Lakeside Hospital and its affiliated institutions are models of modern hospitalization. The Western Reserve University medical group is comprised of (in addition to the Lakeside group containing Lakeside Hospital and the Mather, Robb, Lowman and Harvey Houses, nurses' and physicians' quarters, and Hanna House, the private patients pavilion) the Schools of Medicine, Dentistry, Pharmacy and Nursing, Babies' and Children's Hospital, Maternity Hospital, the Institute of Pathology, Rainbow Hospital and the Power House and Service Building.

As a constant benefactor of the university and its great medical center, and one who for nearly half a century has been the chairman of the Lakeside Hospital Board, an illuminated appreciation was presented to Mr. Mather who presided at the dedication.

The address of dedication was delivered by Dr. Hans Zinsser, professor of bacteriology in the Harvard Medical School. Upon him Western Reserve University conferred the honorary degree of doctor of science.

The degree was also conferred on Dr. Samuel Clark Harvey, professor of surgery, Yale University School of Medicine; Dr. Ewart A. Graham, professor of surgery, Washington University School of Medicine; Dr. Alphonse Raymond Dochez, professor of medicine, College of Physicians and Surgeons, Columbia University; Dr. David Marine, director of laboratories, Montefiore Hospital and assistant professor of pathology, College of Physicians and Surgeons, Columbia University, and Dr. Alfred Newton Richards, professor of pharmacology, University of Pennsylvania School of Medicine.

The doctorate of laws was conferred on Dr. Henry Asbury Christian, Hersey professor of the theory and

practice of physic, Harvard University Medical School, and on Dr. James Ewing, professor of pathology, Cornell University Medical College.

### BRITISH BIRTHDAY HONORS

THE Birthday Honors List of King George, as reported in *Nature*, contains the names of the following men of science and others associated with scientific work: *Order of Merit*: Sir William Bragg, in recognition of his eminent services in the advancement of science. *Knights*: Dr. J. B. Baillie, vice-chancellor, University of Leeds; Colonel S. R. Christophers, director, Central Research Institute, Kasauli; Dr. W. C. D. Dampier-Whetham, fellow of Trinity College, Cambridge; Dr. P. C. Varrier-Jones, founder and medical director of Papworth Village Settlement for the Treatment of Tuberculosis; Professor S. R. Krishnan, King George V. professor of philosophy, University of Calcutta; Professor H. Lamb, emeritus professor of mathematics in the University of Manchester; Mr. C. R. Peers, president of the Royal Society of Antiquaries; Mr. R. L. Robinson, vice-chairman and technical commissioner of the Forestry Commission. *C.I.E.*: Dr. L. C. Coleman, director of agriculture, Mysore State; Mr. A. McKerrall, director of agriculture, Burma; Mr. C. A. Malcolm, chief conservator of forests, Central Provinces, India. *C.B.E.*: Dr. Kate Barratt, principal of Swanley Horticultural College, Kent; Mr. W. J. Hadfield, city engineer and surveyor, Sheffield, a pioneer in modern developments of highway engineering and road surfacing; Professor H. M. Hallsworth, David Dale professor of economics, Armstrong College, University of Durham; Dr. Alice Werner, lately professor of Bantu languages at the School of Oriental Studies, London. *I.S.O.*: Mr. W. H. Moorby, assistant civil engineer-in-chief, Admiralty; Mr. J. B. Scrivenor, director of the Geological Survey, Federated Malay States.

## SCIENTIFIC NOTES AND NEWS

THE doctorate of science was conferred by Harvard University at commencement on Dr. Harvey Cushing, Moseley professor of surgery. In conferring the degree President Lowell said: "Adroit with both the scalpel and the pen, a charming writer and the most renowned cerebral surgeon in the world."

At the commencement exercises of the Massachusetts State College, the honorary degree of doctor of science was conferred on Dr. Charles S. Howe, formerly president of the Case School of Applied Science, Cleveland, and on Dr. Joseph L. Hills, dean of

the College of Agriculture of the University of Vermont.

THE doctorate of science of Bowdoin College was conferred on June 18 on Dr. Isaiah Bowman, director of the American Geographical Society, New York.

At Dartmouth College the degree of doctor of science was bestowed on Dr. William Patten, professor of zoology at the college, who retires this year after serving for forty years, and on Dr. Lawrason Brown, of Saranac Lake, New York, specialist in the treatment of tuberculosis.

DR. HERBERT V. NEAL, professor of zoology and dean of the Graduate School of Tufts College, has received the doctorate of science from Bates College.

THE degree of doctor of science was conferred at the Yale University commencement on Dr. Eugene Lindsay Opie, professor of pathology and head of the department at the University of Pennsylvania and director of the Henry Phipps Institute, Philadelphia, and on Dr. John Ripley Freeman, of Providence, Rhode Island, civil engineer.

DR. BERTHOLD LAUFER, a member of the staff of the Field Museum for the past twenty-three years, was awarded the degree of doctor of laws at the one hundred and sixty-fourth convocation of the University of Chicago. The citation of Dr. Laufer was "in recognition of his distinguished service to science as curator of anthropology in the Field Museum of Natural History and especially of his scholarly and illuminating contributions to the study of the archeology, ethnology and philology of Asia."

WESLEYAN UNIVERSITY conferred the doctorate of science on Dr. Raymond Dodge, of Yale University, formerly professor of psychology at the university, and on Dr. Albert Francis Blakeslee, of the Carnegie Station for Experimental Biology (Wesleyan, 1896). President McConaughy pronounced the following characterizations as the degrees were conferred: On Professor Dodge: "Internationally known for your exact experimental work, largely responsible for Wesleyan's eminence in psychology, after twenty-six years here we lent you to Yale for leadership in her Psychological Institute and the Institute of Human Relations." On Dr. Blakeslee: "Trained by Professor Conn, scientific investigator in Europe and South America, leader of the work in biology and genetics at the Carnegie Station for Experimental Biology, president of the American Society of Naturalists."

DR. IRVING LANGMUIR, of the General Electric Company, has been elected an honorary member of the German Chemical Society, Berlin.

DR. EDWARD B. STEPHENSON, physicist in the sound division of the Naval Research Laboratory, Bellevue, Washington, D. C., was recently awarded a cash bonus of \$2,000 by the Navy Department for his contributions to the technique of preparing quartz crystals for use in controlling the frequency of radio transmitters.

DR. ALBERT RUSSELL MANN, dean of the New York State Colleges of Agriculture and Home Economics at Cornell University, will resign these offices to become provost of the university, a newly established position designed to relieve the pressure on the office of the president.

DR. ALFRED STENGEL, a past president of the American College of Physicians, has been appointed vice-president for medical affairs at the University of Pennsylvania.

DR. RALPH W. CHANEY has been appointed professor and chairman of the department of paleontology at the University of California. The appointment takes effect on July 1. Dr. Chaney will assume the position which was for many years held by Dr. John C. Merriam, now president of the Carnegie Institution, and more recently by William Diller Matthew, whose death occurred on September 24. He will continue his research relationship with the division of plant biology of the Carnegie Institution of Washington.

DR. FREDERICK C. LEONARD, of the University of California at Los Angeles since 1922, has been appointed chairman of the newly created department of astronomy.

DR. ROYAL N. CHAPMAN has been appointed dean of the newly organized Graduate School of Tropical Agriculture at the University of Hawaii. The new school will have library, research and laboratory facilities with an estimated value of a million dollars, as the result of an agreement to pool the resources of the University of Hawaii, the Bishop Museum and the Experiment Stations of the Hawaiian Sugar Planters Association and of the Association of Hawaiian Pineapple Cannerys. Instruction will be given in the sciences fundamental to tropical agriculture. The faculty includes Dr. Oscar N. Allen, Dr. Leonora N. Bilger, Dr. Walter Carter, Dr. Julius L. Collins, Dr. Francis E. Hance, Dr. Maurice B. Linford, Dr. Harold L. Lyon, Dr. Oscar C. Magistad, Dr. Albert J. Mangelsdorf, Dr. Christos P. Sideris, Dr. Harold St. John, Cyril E. Pemberton, Otto H. Swezey and Harold A. Wadsworth.

It is announced in the *Scottish Geographical Magazine* that as from October next Mr. A. G. Ogilvie, at present reader in geography in the University of Edinburgh and joint honorary secretary of the Royal Scottish Geographical Society, will become professor of geography. This is the first professorship in geography to be established in a Scottish university, and represents the culmination of long-continued efforts on the part of the Royal Scottish Geographical Society.

At the annual meeting of the American Society for Pharmacology and Experimental Therapeutics, Professor George B. Wallace was elected *president* and Professor Velyien E. Henderson, of the University of Toronto, *secretary*. In accordance with the constitution of the Federation of American Societies for Experimental Biology, these two officers become the

president and secretary of the federation for the year 1931-32.

DR. JOHN L. MORSE, of Boston, was elected president of the American Society of Pediatrics at the closing session of the first annual meeting at Atlantic City.

MR. JULIUS DANIELS, assistant superintendent of the promotion department of the Edison Electric Illuminating Company, has been elected president of the Illuminating Engineering Society.

At the annual meeting of the British Optical Society on May 14, Professor A. O. Rankine was elected to the presidency.

OFFICERS of the Royal Society of South Africa have been elected as follows: *President*, Dr. W. A. Jolly; *Honorary treasurer*, Dr. L. Crawford; *Honorary general secretary*, Dr. B. F. J. Schonland. Resolutions were passed at the recent annual meeting to protest against the recent reduction of the government grant to the society.

DR. E. V. MCCOLLUM, of the Johns Hopkins University, and Dr. Harry Steenbock, of the University of Wisconsin, will be delegates from the United States at a meeting called by the League of Nations to advise on methods for the standardization of vitamins.

DR. PORTER J. CRAWFORD, a field director of the International Health Division of the Rockefeller Foundation, who at present is directing the yellow fever campaign in Para, Brazil, has leave of absence which he expects to spend in the United States.

DR. JUNIUS HENDERSON, professor of natural history and curator of the museum of the University of Colorado, and Mrs. Henderson, have left for California, where they will spend the summer collecting mollusks.

A SCIENTIFIC expedition from Harvard University to Australia under the auspices of the Harvard Museum of Comparative Zoology and under the leadership of Professor William Morton Wheeler will leave New York on July 25 to make a study and collection of its fauna. Other members of the expedition include Dr. Glover M. Allen, associate professor of zoology and curator of mammals at the museum; Dr. Ira M. Dixon, medical officer of the expedition, and P. J. Darlington, Ralph Ellis and William Schevill, graduate research workers.

DR. E. T. WHERRY, professor of botany at the University of Pennsylvania, and Dr. F. W. Pennell, of the Academy of Natural Sciences of Philadelphia, have left for Council Bluffs and will spend the next three months in the field, in an effort to rediscover the places where early botanists first found many of the species of plants common to the West.

PROFESSOR WILLIAM MCDUGALL, of Duke University, delivered the Ludwig Mond lecture at the University of Manchester on May 19.

DR. HARRY WALDO NORRIS gave the commencement address at Grinnell College on June 8, in commemoration of his forty years of teaching service as professor of zoology in that institution. Dr. Norris continues his connection with Grinnell College under the title of research professor of zoology.

THE Thomas Young Oration of the British Optical Society was delivered at the College of Science and Technology, South Kensington, on June 11, by Sir John Parsons, who spoke on "Young's Theory of Color Vision."

THE China Foundation with headquarters at Peiping has announced special research awards for the year 1931 to the following: Ren-chang Ching, authority on Chinese ferns, who is continuing work in the leading herbaria of Europe; Ching-yueh Chang, for his work on root anatomy. Te-pang Hou, Ph.D., chemical engineer of Tientsin, who is responsible for the first ammonia-soda plant to be established in the Far East; Chi-kung Jen, physicist, for work on the electron tube oscillator, and Hsien-wen Wu, zoologist, for his work on the fish fauna of South China. In addition to the above, the foundation has awarded twenty fellowships to Chinese research workers for special training abroad and has made a like number of fellowship grants for the support of research work at scientific centers in China. These awards are made by an advisory committee of scientific workers resident in China. This foundation was established in 1923 on the funds of the Boxer Indemnity returned to China by the United States government. Of the foundation's annual appropriations, about \$100,000 is devoted to research professorships and to the encouragement of scientific research.

MR. CYRUS H. K. CURTIS has made an unrestricted gift of \$1,000,000 to the University of Pennsylvania.

By the will of the late O. M. Eidlitz public institutions receive direct bequests and remainder interests amounting to more than \$750,000. These include \$229,576 to the Presbyterian Hospital; \$153,050 to the Roosevelt Hospital, and \$54,666 each to the Hospital for the Ruptured and Crippled, Fifth Avenue Hospital, Manhattan Eye and Ear Hospital. Cornell University receives \$25,000 for a scholarship in the engineering department.

THE Soil Fertility Conference at the Pennsylvania State College, held in commemoration of the founding of soil fertility experiments at the college in 1881, opened on June 24. The speakers included F. D.

Gardner, C. F. Noll, J. W. White, A. L. Patrick, F. G. Merkle, F. J. Holben, C. D. Jeffries, all of the staff of the agronomy department, and Walter Thomas, plant chemist of the college; C. F. Marbut, U. S. Bureau of Chemistry and Soils; C. E. Thorne, formerly director of the Ohio Agricultural Experiment Station; A. B. Beaumont, Massachusetts Agricultural College; S. A. Waksman, New Jersey Agricultural Experiment Station; Richard Bradfield, the Ohio State University; J. A. Bizzell, Cornell University; Emil Truog, University of Wisconsin, and S. D. Conner, Indiana Agricultural Experiment Station; H. G. Knight, chief of the U. S. Bureau of Chemistry and Soils; J. G. Lipman, director of the New Jersey Agricultural Experiment Station; J. G. Patterson, director of the Maryland Agricultural Experiment Station; Enos H. Hess, president of Messiah Bible College, Grantham, Pennsylvania, and Frank M. Swartz, geologist at the college. Field trips were taken over the 144 plots in the 50-year-old experiment and an auto tour was arranged to Snow Shoe and Kylertown to observe experiments there. There was a reception to guests, and a banquet with Dean R. L. Watts, of the School of Agriculture, as toastmaster.

SIGMA GAMMA EPSILON, the national honorary geological fraternity, has accepted the petition of the Geological Society of Texas Technological College, and eighteen members of the group were recently initiated as charter members of the college's chapter of the fraternity.

AN economic and social survey of the southern Appalachian region, recommended by numerous public and private educational institutions, will be started this summer. The Bureau of Agricultural Economics will cooperate with the Bureau of Home Economics and Forest Service of the Department of Agriculture, the Office of Education, and several state experiment stations.

THE Royal Society of Canada at its recent convention in Toronto passed a resolution to the effect that Canada should establish three or four magnetic stations in the far north this year, while a dozen more should be established in other northern countries. One of the stations will probably be in northern Labrador, another north of Churchill, and a third at the mouth of the Mackenzie River. Each station will be manned by three to five men, with an expert meteorologist and physicist in charge.

*The Geographical Journal*, London, reports that, according to a statement made at the second annual meeting of the Canadian Geographical Society by the president, Dr. Charles Camsell, the society now has 29,801 members. The organization was completed in

the middle of 1929, and the society became active about the end of that year. Thus nearly 30,000 members have been enlisted in little over twelve months. The first issue of the *Canadian Geographical Journal* appeared in May, 1930, when 10,500 copies were printed; there was a subsequent reprint of 3,000 additional copies to meet the unexpected demand. 35,000 copies of the January, 1931, issue were printed for distribution to the society's members throughout Canada, Great Britain, the United States and elsewhere, the circulation covering no less than thirty-two foreign countries. The society's principal object is to disseminate knowledge of Canada's geography, resources, industrial development and economic possibilities.

*The Experiment Station Record* reports that the International Institute of Agriculture announces that a prize of 10,000 lire will be awarded annually for the best work on agricultural economics from a fund constituted in honor of the recent marriage of the Crown Prince of Italy and Princess Marie José of Belgium. The closing date for the submission of material for the first year is September 30, 1931, and the prize will be awarded on December 31. Participation will be restricted to works published within the two preceding years by authors belonging to countries adhering to the institute. The adjudication will be in the hands of a jury of five, consisting of the president of the institute and four members nominated by the permanent committee in such a way as to represent five different nations. Copies of the regulations and further information may be obtained from the president of the institute at Rome.

THE council of the senate of the University of Cambridge has made a long report to the university on John Humphrey Plummer professorships. It had been originally estimated that the income to the university from this source might be £10,000 a year. Since the time of Mr. Plummer's death the value of his estate has decreased. The council now consider that an annual income of £5,000 is a reasonably safe figure to take. The proposals which the council now lay before the university involve an annual expenditure of £4,260, and it is understood that the trustees would agree to this sum. The council accordingly has recommended "That the council of the senate be authorized to inform the Plummer trustees that the university would approve of the establishment in the university on the John Humphrey Plummer Foundation of professorships of inorganic chemistry, of mathematical physics and of colloid science, and of an annual payment at the initial rate of £300 from the Plummer Fund towards the maintenance of the department of colloid science."

*The Experiment Station Record* reports that an Agricultural Research Institute of Rumania was established under a law enacted in 1927 and formally organized in 1929. It now contains sections of phyto-techny and phyto-genetics, chemistry, phytopathology and rural economics, and it is expected that these will be supplemented with sections on animal production and rural engineering. It has also taken under its direction the Central Agronomic Station at Bucharest; the agricultural chemistry, agricultural technology, seed control, and medicinal plants stations at Cluj; the phytopathology station at Chisinău; the newly established machinery testing station at Bucharest; the agricultural plant improvement and experiment stations at Jassy and Cluj, and agricultural experiment stations at Măreulesti and Tighina.

VISITORS from twenty-one foreign countries registered at the Petrified Forest National Monument in Arizona during the month of April, according to an announcement made by the Director of the National Park Service of the Department of the Interior. The countries represented were: Australia, Austria, Canada, Czecho-Slovakia, Denmark, England, France, Germany, India, Indo-China, Ireland, Italy, Japan, New Zealand, Norway, Poland, Singapore, Spain, Sweden, Switzerland and Venezuela. Visitors from every state in the union and from the District of Columbia also registered at the monument. The Petrified Forest National Monument is an eroded deposit of petrified logs said by scientists to be nearly two hundred million years old. Many of the petrified tree trunks found in the area are more than 100 feet in length. The indications are that some of these trees must originally have attained a height of more than 200 feet. Many interesting features of this ancient deposit of great tree trunks, cross sections of which reveal every color in the rainbow, have been uncovered by the work of erosion. One petrified log,

originally embedded in sandstone, forms a natural bridge, erosion having scooped out a small arroyo under the log. One of the three divisions of the area is called "Rainbow Forest," and chips of agate, onyx, carnelian and jasper are scattered over the ground in every direction.

THE Bird Sanctuary Committee of the Selborne Society, England, has made an urgent appeal for help in safeguarding the Brent Valley Bird Sanctuary, according to a report in the *London Times*. The founding of this reserve, the first of its kind, by the Selborne Society in 1902 set an example which has been widely followed, as the numerous nature reserves now in being attest, and many bird lovers wishing to make small sanctuaries of their gardens have been supplied by the society with boxes like those designed for the Brent Valley Sanctuary. In 1920, the bicentenary year of Gilbert White, of Selborne, the sanctuary was bought as a memorial to the father of British field natural history. The amenities of the Brent Valley Sanctuary will be safeguarded on the north and east by the welcome decision of the Middlesex County Council to keep adjoining fields as an open space. On the west, however, a factory has recently been built. Two fields on the south and south-east are now scheduled as factory sites, and unless the Selborne Society can buy them by June 1 the land will be sold. It is for the purchase of these fields on the south and south-east of the reserve that the Bird Sanctuary Committee is appealing. Most of the land in question, it is stated, could be used for playing fields if some benefactor would come forward in time to save it. For some time past the society has been trying to raise the necessary sum, but it still needs nearly £1,400 to secure the smaller field or £5,000 to secure both. The address of the honorary secretary is The Hermitage, Hanwell, W. 7.

## DISCUSSION

### EVOLUTION A DETAIL IN THE DYNAMICS OF POPULATIONS

As has already been pointed out,<sup>1</sup> known sorts of organisms are not a representative sample of the world population of species in their respective families and orders. The statement rests upon analysis of the taxonomic record of living Chiroptera, Ophiuroidea, Crinoidea, Decapoda and Cactaceae. The relative constancy of form of the curve of genera plotted by size in such groups permits the extension of the conclusion to the living world in general.

Two facts explain why matters stand as they do.

<sup>1</sup> SCIENCE, lxxii, 1858, 141, August 8, 1930; *Anat. Rec.*, xlvii, 3, 350, December, 1930.

First, the ranges of species of great genera are larger upon the average than those the species of lesser genera occupy. Second, collectors are impressed by the novelty of species of the smallest genera and, when working in the field, spare no effort to secure specimens.

As a result, in groups where the prevailing method of collection is mechanical, as it is when tow-net, dredge or trawl is employed, the greater genera are over-represented in the haul. But, in groups where the collector's psychology determines in part what shall be turned in for study and naming, genera least and greatest in size are both over-represented; and