

Hi(eq) Williams, of New York, on "Illustrative Photography in Color," and Mr. Schmidt discussed the direction of light as the dominant factor in the photography of bacterial colonies. Other papers included C. E. Dunn, of George Murphy and Company, Inc., "A Practical Demonstration of Belcolor"; Dr. Francis Carter Wood, Institute for Cancer Research, Columbia University, "Lumiere Color Photomicrography"; Edward Mila, Metropolitan Museum of Art, "Color Subjects Rendered in Monochrome"; Heinz Rosenberger, of New York and Sandy Hook, Connecticut, "Additional Points in Cinema Technique"; C. G. Grand, Department of Biology, New York University, "Microcinematography"; Loren E. Tutell, Chicago Aquarium, "Marine Photography"; S. G. Dunton, New York Aquarium, "Some Motion Picture Technique in Aquatic Photography"; Arthur W. Fuchs, of the Medical Department, Eastman Kodak Company, "The Preparation of Illustrations for Half-tone and Line Engraving"; and one by Louis P. Flory, of the Boyce Thompson Institute.

Officers of the association are Ralph P. Creer, *president*; Louis Schmidt, *vice-president*; Anne Shiras, University of Pittsburgh, *secretary*, and Katharine W. Kingsbury, Columbia University, *treasurer*.

RECENT DEATHS AND MEMORIALS

DR. BERTHOLD LAUFER, curator of anthropology at the Field Museum of Natural History, was killed on September 13 by a fall from the eighth floor of a hotel in Chicago. Dr. Laufer, who was born in Cologne, Germany, in 1874, was distinguished for his work in Oriental anthropology. He was a member of the National Academy of Sciences.

DR. PAUL G. SHIPLEY, associate professor in pediatrics at the Johns Hopkins Medical School and assistant chief physician at the Harriet Lane Hos-

pital, died suddenly on September 12, at the age of forty-five years.

DEATH closed on August 18 the twenty-year service to the University of Illinois of Frank Lincoln Stevens, professor of plant pathology. Previously, he was for a number of years professor of botany at the North Carolina State College, and for two years dean of the College of Agriculture of the University of Porto Rico. He was internationally known for his contributions in the field of tropical fungi. He held honorary degrees from the University of San Marcos, Peru, and from the University of Glasgow. In 1930-31 he occupied the Baker memorial professorship at the University of the Philippines.

The Geological Magazine reports that the corporation of the Borough of Morecambe and Heysham has placed on the house where the late Professor J. E. Marr was born in 1857 a memorial tablet, which was unveiled on June 23 by Mrs. Walker-Jones, his last surviving sister. Professor Sir F. Gowland Hopkins, president of the Royal Society, spoke on the work of Professor Marr as a geologist.

THE Paris correspondent of the *Journal* of the American Medical Association writes that "the municipal council of Paris recently gave the name of Dr. Carlos Finlay to a street of the fifteenth ward of the capital, an honor to a foreign scientist almost without precedent, Humboldt and Linné being further examples. Finlay, whose mother was French, studied in France, and on returning to his native country he announced the theory of transmission of yellow fever by mosquitoes. Last December the Academy of Medicine had celebrated the centenary of Finlay's birth at a special session attended by Professor Dominguez, who came to France to pronounce the eulogy of his compatriot."

SCIENTIFIC NOTES AND NEWS

DR. WILLIAM WHITEHEAD WATTS, emeritus professor of geology in the Imperial College of Science and Technology, South Kensington, has been elected president of the British Association for the Advancement of Science.

DR. ARTHUR H. COMPTON, professor of physics at the University of Chicago, was elected president of the International Congress of Electro Radio Biology, held in Venice from September 10 to 15.

THE American Astronomical Society has awarded the first Annie Jump Cannon Prize for distinguished work in astronomy by women to Dr. Cecilia Payne Gaposchkin, of the Harvard College Observatory. The prize, which was established by Miss Cannon, consists

of a cash award and some other token, the nature of which has not yet been decided.

At the meeting of the Société Française de Photographie et de Cinématographie held on January 26, it was unanimously voted to award the silver medal of the society to Dr. Burt H. Carroll and Dr. Donald Hubbard in appreciation of their research on photographic emulsions at the National Bureau of Standards. An excerpt from the report recommending the award and appearing in the *Bulletin* of the society is as follows: "The budget retrenchments which the Government of the United States have made has forced the Bureau of Standards to close its laboratory devoted to the study of photographic emulsions, a lab-

oratory in which Messrs. Burt H. Carroll and Donald Hubbard have carried on researches the publication of which has for the first time given quantitative information on the preparation of modern photosensitive emulsions. . . . Our society will be honored in awarding to Messrs. Carroll and Hubbard two of its medals, thus expressing its appreciation of their important contributions in a field heretofore mysterious."

THE Congress of Physical Therapy awarded at the recent Philadelphia meeting its golden key to Dr. Leroy W. Hubbard, director of the Warm Springs Foundation for Infantile Paralysis Treatment, in Georgia; to Dr. Henri Brodier, professor of medicine, University of Lyons, for studies in the physiology of high frequency currents; to Dr. Oscar Bernard, of St. Moritz, Switzerland, for studies in heliotherapy in surgical tuberculosis; to Dr. Franz Nagelschmidt, London, for studies in the use of diathermy, and to Dr. W. W. Coblentz, of the Bureau of Standards, Washington, D. C., for work in the field of ultra-violet radiation.

THE *Journal* of the American Medical Association states that the infirmary building of the new Seaside Sanatorium for children at Waterford, Conn., has been named in honor of Dr. Stephen J. Maher, for twenty years chairman of the Connecticut State Tuberculosis Commission. The new sanatorium, erected at a cost of \$500,000, will care for patients with bone and glandular tuberculosis and replace the old building at Crescent Beach.

DR. CHARLES F. ROOS, chief of the research and planning division of the NRA and from 1930 to 1932 permanent secretary of the American Association for the Advancement of Science, has been appointed professor of economics at Colorado College.

MAURICE JAMES, of the department of biology at the University of Colorado, has been appointed curator of the museum at the State Agricultural College, Fort Collins, Colo.

PROFESSOR G. GREY TURNER has been appointed to the university chair of surgery at the British Post-Graduate Medical School of the University of London.

THE Institute of Pathology of The Western Pennsylvania Hospital announces the following appointments to its research staff: Dr. Philip B. Hadley, until recently associate professor in bacteriology in the School of Medicine of the University of Michigan; and Dr. Arthur P. Locke, formerly associated with the department of chemistry of the University of Chicago and with St. Luke's Hospital as chief of biochemical research. The Institute of Pathology is the medical research affiliate of the Mellon Institute of Industrial Research.

ACCORDING to the *Journal* of the Washington Academy of Sciences, O. W. Torreson has succeeded J. E. I. Cairns as observer-in-charge of Huancayo Magnetic Observatory in Peru. The latter, having completed his three-year term of service at the observatory, will return to Washington. W. E. Scott has been appointed observer on the staff of the observatory and has left Washington for Peru.

PROFESSOR HARLEY H. BARTLETT, chairman of the department of botany and director of the botanical gardens of the University of Michigan, has been appointed chairman of a sub-committee on administration and relations with other federal establishments under the general congressional committee on reorganization of the U. S. Botanic Garden in Washington.

PROFESSOR H. H. LOVE, of the department of plant breeding at Cornell University, has returned from the Orient after a stay of three and a half years. Professor Love went to China to serve as adviser in agriculture to the Ministry of Industries, to direct crop-improvement work in the provinces of Kiangsu and Chekiang, and to train Chinese in this work at the University of Nanking and the National Central University of Nanking.

DR. R. A. MILLIKAN, of the California Institute of Technology, has left Pasadena to sail for Europe to attend a joint conference of the International Union of Pure and Applied Physics and the British Physical Society meeting in London from October 1 to 6, under the presidency of Dr. Millikan and of Lord Rayleigh.

DR. WILLIAM F. ZIMMERLI has been appointed a delegate of the American Chemical Society to the fourteenth Congress of Industrial Chemistry to be held in Paris from October 21 to 27, under the auspices of the Société de Chimie Industrielle.

DR. HENRY FAIRFIELD OSBORN, honorary life president of the American Museum of Natural History, who sailed for Europe on August 1, has returned to New York.

DR. REXFORD GUY TUGWELL, Under Secretary of Agriculture, has sailed for Europe to attend a meeting of the International Agricultural Institute at Rome.

RAYMOND L. DITMARS, curator of reptiles at the New York Zoological Park, returned to New York on September 8, after spending a month in Trinidad making collections of reptiles for the park.

F. K. PEASE, of Portsmouth, England, sailed from Liverpool on August 31 for Canada, on his way to the Arctic in search of log books or other relics of the Franklin Expedition of ninety years ago which

resulted in the loss of many lives, including that of Sir John Franklin.

T. H. EVERETT, horticulturist of the New York Botanical Garden, is spending five weeks in England, visiting botanic gardens and private estates and lecturing on the New York Botanical Garden's expedition into the southern Appalachians in the autumn of 1933.

DR. OSCAR E. HUBBARD, for two years with the Institute of Human Relations at Yale University, has become psychiatrist at the Fairfield State Hospital, Newtown, Conn.

J. BARTELS, research associate of the Carnegie Institution of Washington and professor at the Förstliche Hochschule, Eberswalde, Germany, will work for about three months in the Department of Terrestrial Magnetism, Washington, D. C.

DR. W. EDWARDS DEMING, of the Bureau of Chemistry and Soils, U. S. Department of Agriculture, began on September 27 a series of thirty weekly lectures on the statistical theory of errors.

PROFESSOR MILO HELLMAN will deliver a course of twenty-five lectures on problems confronting the orthodontist at the School of Dental and Oral Surgery, Columbia University, beginning on October 1.

A SERIES of lectures in industrial chemistry and chemical engineering will be presented by technologic specialists of Mellon Institute of Industrial Research during 1934-1935. These discourses, which will be delivered on alternate Thursdays, in the fourth period (11:30 A.M.—12:30 P. M.), throughout both semesters, will be open to all students of industrial chemistry and chemical engineering in the University of Pittsburgh, as well as to members of the institute. The first lecture will be given on October 4 by Dr. E. R. Weidlein on "The American Institute of Chemical Engineers." He will be followed by Dr. F. P. Lassetter, who will speak on "Fuels for Power Generation"; H. B. Meller, "Air Hygiene"; S. M. Phelps, "Refractories"; Dr. A. P. Thompson, "Abrasives"; Dr. E. W. Reid, "Chemicals from Natural Gas and Petroleum"; Dr. W. B. Burnett, "Rayon"; Dr. M. H. Bigelow, "Synthetic Resins"; Dr. O. F. Hedenburg, "Insecticides and Fungicides"; Dr. H. K. Salzberg, "Dairy Products"; Dr. M. D. Coulter, "Food Merchandising"; Dr. Jules Labarthe, "Commodity Standards"; Dr. L. H. Cretcher, "Synthetic Medicinals," and Dr. G. D. Beal, "The Pharmaceutical Industry."

Two new sound pictures on the preservation of wild life, combining scenic beauty with pictures of wild game mammals and birds, have been released by the U. S. Department of Agriculture. Paul G. Redington, formerly chief of the Bureau of Biological

Survey, delivers the lecture for "Our Wild-life Resources," a two-reel film contrasting the wild life of North America as it existed in the sixteenth century with that of to-day. It shows the methods employed by the Bureau of Biological Survey to preserve remaining species threatened with extinction. Scenic shots show birds and mammals in natural surroundings. "The Wapiti of Jackson Hole," a one-reel picture (lecture by O. J. Murie, biologist of the Bureau of Biological Survey), tells the story of the elk and their winter refuge near Jackson Hole, Wyoming. The life history of the elk is outlined, and scenes are presented illustrative of aid given to the elk herd in hard winter seasons. Prints of these films in 35 mm size, sound-on-film, may be borrowed from the Office of Motion Pictures, U. S. Department of Agriculture, Washington, D. C. No rental is charged, but the borrower pays transportation. A list of other available sound films may be obtained on application.

The British Medical Journal reports that the Achille Selavo prize of 10,000 lire, founded by the National Opothérapeutic Institute of Pisa under the patronage of the National Institution for Research, is offered for the best essay on one of the three following subjects: (1) comparative investigations on the total endocrine extracts and their hormones in their physiological and therapeutic aspects; (2) experimental and clinical contributions to the pathology of the thymus; (3) relations between the hypophysis and somatic and metabolic activity. The first prize will consist of 8,000 lire and there will be two consolation prizes of 1,000 lire each. Two copies of the essay should be sent not later than May, 1936, to the Consiglio Nazionale delle Ricerche, Ministeria della Educazione Nazionale, Viale Del Re, Rome.

A CORRESPONDENT from Rome to the *London Times* writes: "Armed with special surveying instruments from the Geodetic Institute of Padua, Senator Soler, who is professor of geodetics in the University of Padua, and Professor Boaga, of the Higher Engineering School of Pisa, have undertaken a series of experiments on Mount Vesuvius. In recent years they investigated the limestone caves in the Carso, near Trieste and Postumia, and are said to have established the probable existence of many caves as yet unexplored and new means of connection between various groups of caves. It now appears that they propose to investigate whether the central conduit of Vesuvius descends for a long distance perpendicularly or whether it branches off in a lateral direction. Researches are also to be made to establish whether the interior of the volcano is a compact mass, or whether there are hollows and subterranean caverns. It is thought that the results of their investigations may

throw light on the phenomena of eruptions and of earthquake shocks."

A CORRESPONDENT of the *Journal* of the American Medical Association writes: "The momentous fact that after extraordinary expansion in the past century the population of England is rapidly approaching a maximum and then an inevitable decline has attracted little notice. The fact that an increase is still going on shuts people's eyes to the fact that the present birth rate is insufficient to maintain the present population in future years. At the congress of the Royal Sanitary Institute, Professor A. M. Carr-Saunders, a statistician, pointed out that the population of this country will cease to increase in 1940, and possibly before then, and will subsequently decline. He said that since the Domesday survey, at the end of the eleventh century, estimates for every succeeding century showed increases interrupted only by temporary catastrophies. It can be proved that the death rate will presently exceed the birth rate, and that the population will begin to decrease without any

further decline in the fertility of married women—that is to say, in the size of the family. There is no longer 'a replacement birth rate.' The number of children born within the last five years, who in twenty years should form the 20–25 years age group, does not equal the number now in that group. Moreover, some of them will die before reaching the age of 20. The important point is that the population will cease to increase and will then decline, even if there is no further decrease in the size of the family. But the size of the family decreases every year. If emigration were again to attain its pre-1929 level, a decline would set in before 1940. Emigration on this level from 1929 to 1940 would mean a drop of population by a million at the end of that period. Professor Carr-Saunders complained that there is a complete failure to appreciate the situation. He has seen plans which visualize a population during the next half century arrived at by projecting the continuance of the growth of the last fifty years. In one case a large expenditure has been incurred to supply water for a population that will never exist."

DISCUSSION

JAPAN HONORS CHINA

GOZARIMASU¹ is a magic word which one hears on every hand on arrival in Japan. None of the language books written for tourists or even the recent Japanese-English dictionaries tell the meaning. One learns only that it is polite to say gozarimasu.¹ After some study into the Japanese and Chinese languages one learns that "go" is of Chinese origin, the word having been brought from China to Japan after 600 A. D., and the rest of the expression is the form of the verb "arimasu." Since the Japanese have no alphabet but only a syllabary, formed from Chinese grass characters representing individual Chinese words used only for their sound, one realizes that these syllables are often used in place of consonants and a vowel is either very much slurred or entirely silent. This combination of Chinese and Japanese in the language is symbolic of the civilization of Japan. The Japanese have no record of their antiquity, but anthropologists have shown that there is a considerable Malay element. We may picture their forebears as Malay pirates and fishermen settling on the shores of these great islands and conquering and absorbing the aborigines. The process of absorbing the Ainu aborigines is still going on in Hokkaido and Sakhalin (Karafuto). I visited an Ainu chief in Hokkaido. He was living in a Japanese house and had served in the Japanese army. He still preserved the ancient

custom, however, of using a mustache lifter, which figured not only in the drinking from a bowl but in the very elaborate grace said at the beginning of the meal. From the Japanese he had adopted the idea of omitting the smoke-hole in the roof. This may have been somewhat forced, however, as Japanese in attacking Ainu villages used to pull straw from the thatched roof, set it afire and poke it down the smoke-hole in order to smoke out the Ainu.

If the Japanese ever lived like Malays they have changed considerably, having adopted chopsticks, lacquer, porcelain, art, printing, silk, tea and rice-culture from the Chinese and moved their houses from stilts in the water onto the shore. The Japanese were not alone in adopting Chinese culture. Europe received from China by way of the silk route through Asia not only silk and tea but the mariner's compass, firearms, printing, alchemy, deep breathing and muscular exercises, for the sake of health, and the medical lore of the pulse. Columbus carried a letter addressed to the Great Kahn when he discovered America and mistook a Mayan ship loaded with textiles for an East Indian vessel. A Japanese told me they had invented their own foot gear, which was peculiar to Japan. However, in the south of Japan they call the sandal "waraji," and the Indians of Mexico make it in the same form and call it "guarachi." These words sound exactly alike, but the spelling of the Japanese follows Reverend Hepburn and that of the Mexican follows the Spanish priests. It is well recog-

¹ r and u are silent.