ogy; "The Electronic Diffraction Method," by Dr. Louis R. Maxwell, of the Department of Agricultural Chemistry and Engineering of the U. S. Department of Agriculture; "The Band Structure Method," by Dr. R. Bowling Barnes, of the American Cyanamid Company, and "The Raman Spectra Method," by Dr. George M. Murphy, of Yale University.

The sessions of the Optical Society for the reading of papers will open on Wednesday, February 21.

The sessions of the Inter-Society Color Council will be held on Wednesday and Thursday, in the Hendrick Hudson Room of the Roosevelt Hotel and in the auditorium of the Electrical and Gas Association, 480 Lexington Avenue. On Wednesday there will be an afternoon technical session on "Spectrophotometry in the Pulp and Paper Industry" sponsored jointly by the Technical Association of the Pulp and Paper Industry, and an evening popular session, a Parade of Color, to consist of recent or interesting color developments in the fields covered by the various member bodies of the council. On Thursday there will be a morning discussion session for which topics will be announced, and an afternoon business session.

A joint dinner of the three organizations has been planned for Friday evening. A *Bulletin* of the American Physical Society containing a program of the meeting, including abstracts of contributed papers and details of the session, will be mailed to members about February 2.

AWARDS OF THE GEOLOGICAL SOCIETY, LONDON

THE council of the Geological Society, London, has made the following awards:

The Wollaston Medal.—Henry Woods, formerly university lecturer in paleontology in the University of Cambridge, in recognition of the value of his researches into the mineral structure of the earth, especially his studies of fossil Mollusca and Cretacea from the Cretaceous formations of Great Britain, Africa and New Zealand.

The Murchison Medal.—Dr. Arthur Holmes, professor of geology in the University of Durham, in recognition of the value of his petrological researches and of his stimulating studies concerning the composition and physical state of the earth's interior.

The Lyell Medal.—Dr. H. L. Hawkins, professor of geology in the University of Reading, for his eminence in paleontology, particularly in his studies of the Echinoidea, and for his researches in Eocene stratigraphy.

The Wollaston Fund.—Miss Dorothea M. A. Bate, for her investigations of Pleistocene mammalian faunas in Palestine and the Mediterranean.

The Murchison Fund.—Archibald Gordon Macgregor, for his petrological researches into Scottish rocks and his work on the geology of Monserrat.

A moiety of the Lyell Fund.—Miss Dorothy Hill, for her researches on Paleozoic corals.

A second moiety of the Lyell Fund.—L. H. Tonks, for his work on the Carboniferous rocks of Lancashire and Northumberland.

SCIENTIFIC NOTES AND NEWS

THE seventy-fifth birthday of Dr. George H. Parker, professor emeritus of zoology at Harvard University, which occurred on December 23, was celebrated by presenting to him a volume of letters from students, associates and friends. He was further honored by a reception on January 8, held at the Harvard Faculty Club, at which time his portrait, the work of Charles Hopkinson and a gift from students and colleagues, was presented to the university. The portrait will be hung in the Biological Laboratories. Professor Parker graduated from Harvard College in 1887. He joined the faculty in 1888 and became professor emeritus in 1935.

AT the luncheon of the American Science Teachers Association, held in Columbus on December 31, a volume of letters was presented from associates, friends and former students to Dr. Otis W. Caldwell, professor emeritus of Teachers College, Columbia University, formerly professor of botany at the University of Chicago, now general secretary of the American Association for the Advancement of Science. The address at the luncheon was made by Dr. Walter B. Cannon, professor of physiology at Harvard University, president of the association.

MATTHEW W. STIRLING, chief of the Bureau of American Ethnology of the Smithsonian Institution, and Bradford Washburn, director of the New England Museum of Natural History, Boston, have been awarded Franklin L. Burr Prizes of $1,000 each by the National Geographic Society. The prize to Mr. Stirling was in recognition of his discovery in 1939, in the State of Vera Cruz, Mexico, of a monument bearing the earliest recorded date yet discovered in the New World—a date in Maya symbols corresponding to 291 B.C. of the Christian calendar, and the uncovering of other carvings and artifacts shedding light on early civilization in Mexico. The prize to Mr. Washburn was for his exploration by air and for his aerial photography during the last three years of glaciers and parts of glacier systems not previously known to exist in Alaska near Mount St. Elias.

GEORGE JACKSON MEAD, vice-president and director of the United Aircraft Corporation, vice-chairman of the National Advisory Committee for Aeronautics,

has been awarded the Sylvanus Albert Reed Award for 1939 of the Institute of the Aeronautical Sciences, in recognition of his participation in the development of radial aircraft engines for military and commercial services. The presentation will be made at the "honors night" dinner of the institute on January 26.

DR. W. J. V. OSTERHOUT, of the Rockefeller Institute for Medical Research, New York City, was elected at the Columbus meeting Charles Reid Barnes honorary life member of the American Society of Plant Physiologists. Dr. Osterhout is the sixteenth plant physiologist elected to the honorary membership which is named after the late Dr. Charles Reid Barnes, of the University of Chicago, one of the founders of the science of plant physiology in America.

DR. ISAIAH BOWMAN, president of the Johns Hopkins University, has been elected an honorary member of the Explorers' Club of New York City.

HERBERT J. SPINDEN, curator of American Indian art and primitive cultures at the Brooklyn, N. Y., Museum, has been made chairman of the section of anthropological sciences at the eighth American Scientific Congress, which will be held from May 10 to 18 at Washington, D. C.

IT is reported in *Nature* that at a meeting of the Council of the National Institute of Sciences of India in Calcutta, the following were elected fellows of the institute: *Ordinary Fellows:* Dr. K. Banerjee, reader in physics, University of Dacca; Dr. F. R. Bharucha, professor of botany and head of the department, Royal Institute of Science, Bombay; Dr. R. N. Ghosh, reader in physics, University of Allahabad; Professor H. K. Mookerjee, university professor of zoology and head of the department of the University of Calcutta; Professor V. V. Narlikar, professor of mathematics and head of the department, Benares Hindu University; Dr. C. G. Pandit, officiating director of the King Institute of Preventive Medicine, Guindy, Madras; Major C. L. Pasricha, professor of pathology and bacteriology, School of Tropical Medicine, Calcutta; Professor L. Rama Rao, professor of geology, University of Mysore; Dr. M. Sharif, entomologist, Haffkine Institute, Bombay; Dr. K. Venkataraman, director of the University of Bombay Laboratories of Chemical Technology and Textile Chemistry. *Honorary Fellow:* Dr. E. V. Appleton, secretary of the Department of Scientific and Industrial Research.

DR. EDMUND WARE SINNOTT, professor of botany at Barnard College, Columbia University, has been appointed Sterling professor of botany, chairman of the department and director of the Marsh Botanical Gardens at Yale University. The appointment will become effective on July 1.

DR. PERRIN H. LONG, professor of medicine in the School of Medicine of the Johns Hopkins University, has been appointed head of the new department of preventive medicine. The department was established through a grant from the Rockefeller Foundation of $350,000 over the next ten years.

HOWARD LANDIS BEVIS, William Ziegler professor of law and government in the Graduate School of Business Administration at Harvard University, at one time Ohio state director of finance and judge of the Supreme Court of the state, has been elected president of the Ohio State University. Dr. William McPherson, emeritus professor of chemistry and dean of the Graduate School, has been *interim* president since the retirement as president emeritus of Dr. George W. Rightmire.

DR. A. R. PATTON, of the Colorado Agricultural Experiment Station, has been made head of the department of chemistry of the Montana Agricultural Experiment Station.

THE Committee on Therapeutic Research of the American Medical Association has made a grant to Dr. Harry Beckman, director of the department of pharmacology at the School of Medicine of Marquette University, Milwaukee, for his work on the prophylaxis of mosquito-transmitted avian malaria.

AFTER twenty-three years of service, Professor George R. La Rue has resigned the directorship of the University of Michigan Biological Station. His successor is Dr. Alfred H. Stockard, assistant professor of zoology at the University of Michigan, and for the past nine years secretary to the station.

DEWEY DEFOREST KNOWLES, director of research and development for the Raytheon Production Corporation, Boston, Mass., has joined the research engineering staff of the special products department at Bloomfield, N. J., of the Westinghouse Electric Company.

DR. HAROLD W. SCHULTZ, instructor in the department of physiology of the Ohio State University, has become a member of the staff of Arthur D. Little, Inc., of Cambridge, Mass., to carry on biochemical studies in the fields of nutritional and pharmaceutical research and development.

DR. ARTHUR PERCY SAUNDERS, Childs professor of chemistry emeritus at Hamilton College, has been elected a member of the Board of Managers of the New York Botanical Garden.

THE Board of Managers of the Wistar Institute announces the following additions to the Advisory Board: Dr. J. S. Nicholas, Osborn Zoological Laboratory, Yale University; Dr. George B. Wislocki, department of anatomy, Harvard Medical School; Dr.

George W. Corner, School of Medicine and Dentistry, University of Rochester, New York.

DR. HENRY S. GRAVES, dean emeritus of the Yale School of Forestry, has accepted an assignment from the General Education Board of New York, to make an extended investigation of the problems of education and research in forestry in the southern states.

THE New York Chapter of the American Institute of Chemists will hold a dinner meeting at the Chemists' Club on January 19. Dr. W. Landis, vice-president of the American Cyanamid Company, will make an address entitled "The Training of the Chemical Executive."

DR. F. G. BRICKWEDDE, chief of the cryogenic laboratory of the National Bureau of Standards, delivered his address as the retiring president of the Philosophical Society of Washington at the Cosmos Club on the evening of January 6. He spoke on "Some Complexities of the Simple Element Hydrogen."

DR. ENRICO FERMI, professor of physics at Columbia University, gave a lecture entitled "Nuclear Bombardment with Neutrons" at the Franklin Institute, Philadelphia, on January 17.

PROFESSOR H. JERMAIN CREIGHTON, chairman of the department of chemistry of Swarthmore College and president of the Electrochemical Society, addressed on January 9 the Cleveland section of the society on "The Electrochemical Reduction of Sugars."

THE Dunning Science Building, presented to Washington College, Chestertown, Md., by Dr. H. A. B. Dunning, of Baltimore, was dedicated on January 16. Speakers at the exercises included: President Isaiah Bowman, of the Johns Hopkins University; Dr. E. K. Marshall, Jr., and Dr. Donald H. Andrews, both of the university, and Dr. Guy E. Snavely, executive director of the Association of American Colleges, New York.

THE Midwestern Psychological Association will hold its annual meeting on May 3 and 4 at the department of psychology of the University of Chicago. Professor F. A. Kingsbury is acting as local chairman for the meetings. The presidential address will be given by Professor J. P. Guilford, of the University of Nebraska. In addition a full program of research papers and symposia is being arranged by the program committee under Professor Fred McKinney, of the University of Missouri.

THE annual meeting and banquet of the Torrey Botanical Club was held at the Men's Faculty Club, Columbia University, Tuesday evening, January 9. The following members were announced as having been elected as officers for 1940: *President,* B. O. Dodge; *First Vice-president,* G. T. Hastings; *Second Vice-president,* E. B. Matzke; *Editor,* H. W. Rickett; *Corresponding Secretary,* J. S. Karling; *Recording Secretary,* Miss Clyde Chandler; *Treasurer,* H. N. Moldenke; *Business Manager,* M. Levine; *Bibliographer,* Mrs. F. Kavanagh. Among the items discussed at this meeting were the proposals for the establishment of a John Torrey Lectureship in botany and a Pan-American Botanical Congress.

GIFTS for research amounting to $132,559 have been made to the University of Pennsylvania as part of its bicentennial fund. These include: Commonwealth Fund, $27,255 for streptococcus research, kidney research and study of air-borne infections; Rockefeller Foundation, $12,650 for industrial research and other medical studies; Smith, Kline and French Laboratories, $19,956 for physiologic chemistry, diabetes, dermatology and gastrointestinal research; Estate of George S. Cox, $6,250 for research in diabetes; National Tuberculosis Association, $5,971 for study of the chemistry of the tubercle bacillus and research on x-ray technic; National Committee on Mental Hygiene, $2,500 for research in dementia praecox; Nemours Foundation, $2,400 for a fellowship in pediatrics; International Cancer Research Foundation, $1,415 for study of malignant tumors in frogs and x-ray therapy in larger animals; Parke, Davis and Company, $3,000 for research on pituitary hormones; Abbott Laboratories, $2,500; Merck and Company, Inc., $2,000. The bicentennial celebration opened on January 17, Founders' Day, with a program commemorating the birth of Benjamin Franklin.

THE *Journal* of the American Medical Association writes: "The acquisition of a site for a new Army Medical Library and Museum building in Washington was recommended by the President in the budget for the fiscal year of 1941, which he submitted to Congress on January 4. The budget contemplates that the Congress shall appropriate $600,000 for the purchase of the site and for preliminary expenses in connection with the building to be constructed and that the site be selected on East Capitol Street, in Washington, adjacent to the Congressional Library group. Thus moved one step further toward fruition the hopes and petitions of physicians that a structure be provided in which the vast collection of invaluable medical literature comprising the Army Medical Library, often spoken of as the Surgeon General's Library, may be safely and adequately housed. The Seventy-Fifth Congress authorized the construction of such a building to cost $3,750,000, but did not appropriate any money to make effective its authorization. The recommendation contained in the budget for 1941 is now before the Committee on Appropriations of the House of Representatives."

CLAREMONT COLLEGES, Calif., announces an essay contest under the auspices of the John Muir Enterprise. Manuscripts should be of suitable length for magazine publication but should not exceed 3,000 words, and must reach the judges before February 1. This contest is part of a project to encourage "interest in the study of nature and an appreciation of beauty and other values in nature as a force in noble living." Three prizes are offered of $100, $75 and $50. Each essay should consist of "an original study of some subject in nature or about nature and should embody the appreciation of such factors as beauty, strength, form, variation and other values." Complete information may be obtained by writing to the John Muir Enterprise, Claremont, Calif.

THE *Journal* of the American Medical Association reports that the Kitasato Institute for Infectious Diseases, Tokyo, celebrated its twenty-fifth anniversary on November 5. The institute was founded by Baron Kitasato, the Japanese bacteriologist who discovered the bubonic plague bacillus, after he had served many years as director of the Imperial Japanese Institute for the Study of Infectious Diseases. Baron Kitasato was born in 1856 and died in 1931.

DISCUSSION

STAGNATION OF ICE IN CONNECTICUT

IN a recent review[1] of my report on the physiography of the Quinnipiac-Farmington Lowland in Connecticut,[2] Richard Goldthwait has presented an impartial and highly complimentary summary of my views. However, as a stanch believer in stagnation of ice in New England he has raised a few questions which I take this opportunity to answer. Because stagnant ice is far easier to visualize than to disprove, my report did not attempt to answer all the countless claims for it, but rather to demonstrate by good scientific logic of a normal retreat explanation, as well as by positive disproof of stagnation claims in vital localities, that stagnation in Connecticut is highly improbable.

Thus, although my reviewer made only passing mention of the map of a proglacial delta which I presented in my report to show that a late-Glacial water body existed at Southington, Conn., he was not aware that this map had to be made expressly in order to convince some who had seen the feature in question with me in field conferences that it was indeed a delta, and others who steadfastly believed that the delta lobes were ice contacts formed against ice on the south. In this case it took six weeks of mapping to disprove stagnant ice in one small locality where it had been claimed, but left little doubt that the upper Quinnipiac Valley was uncovered by normal retreat.

With similar purpose Dana's well-known old map of New Haven,[3] sprinkled with elevations, had to be reprinted to make clear that the New Haven Plain is not a horizontal terrace—as all Connecticut terraces have at times been described in stagnation literature. The review mentioned that I detected post-Glacial regional deformation, but did not state that the measurement is 5½ to 6 feet per mile, established by levels that I ran ten years ago, whereas in an equally long period of stagnation studies no measurable deformation had been recognized in Connecticut.

Referring to specific points Goldthwait states that "a few ideas, which supporters of down-wastage may well challenge, are, first, that ice-contact deposits like the Mill River red 'valley train' will show good preservation and down-valley alignment if deposited more or less simultaneously in pools along quasi-stagnant ice masses, but not when deposited one by one around a retreating stubby tongue of active ice." This question concerns the morphology of valley trains. There are numerous text-book illustrations of valley trains formed by streams flowing from retreating stubby tongues of active ice, but I have never seen a case demonstrated in the plentiful pictorial literature on living glaciers where valley trains have been formed in pools along quasi-stagnant ice masses.

"Secondly," it is stated, "the absence of significant early drift in the lower Quinnipiac Valley implies presence of ice there which barred deposition, while the high Mill River and upper Quinnipiac valley received gravels." This statement is misleading because it presents an inference and not a fact. The inference is based on Flint's[4] and not on my field work. I found no lack of "significant early drift" in the lower Quinnipiac Valley in the form of varved clay and deltas which Ward[5] and I both interpret to indicate open water. The submerged condition of the lower Quinnipiac Valley, which made it an effective barrier to the advance of coarse sediment, explains the difference in character and extent of filling by solid matter as compared with the higher, steeper and narrower Mill River Valley, which offered free drainage for a powerful river carrying coarse sand and gravel. The contrast in the two valleys is completely

[1] R. P. Goldthwait, *Jour. Geomorphology*, 2: 166–169, 1939.

[2] R. J. Lougee, Colby Monographs, No. 7, 64 pp., 15 plates: Colby College, Waterville, Maine, 1938.

[3] J. D. Dana, *Am. Jour. Sci.*, 3rd ser., 26: 341–361, 1883; 27: 113–130, 1884, p. 113.

[4] R. F. Flint, *Am. Jour. Sci.*, 5th ser., 27: 81–91, 1934, p. 88.

[5] Freeman Ward, Conn. State Geol. and Nat. Hist. Survey, *Bull.* 29, 78 pp., plates and maps, 1920, p. 55.