News and Notes

R. Plato Schwartz, associate professor of orthopedic surgery at the University of Rochester School of Medicine and Dentistry, left by plane on 30 April for England and Germany to study the problem of military footwear as scientific consultant to the U S. Army. He will return in June.

F. R. Moulton was honored by a birthday party given by the staff of the central office at the 2400 Club on the occasion of his 74th birthday, Monday, 29 April. Besides Dr. Moulton the guests of honor included two of his brothers, Harold G. Moulton, president of the Brookings Institutes, and Verne V. Moulton, president of Auto Owners Insurance Company. Also present were Dr. Barbara Moulton, a resident physician at the Suburban Hospital, Bethesda, Mrs. Harold G. Moulton, and Mrs. Verne V. Moulton. Dr. and Mrs. E. J. Stieglitz, close friends, were among the guests. During the evening Dr. Moulton revealed in a humorous vein the steps that led up to the acquisition of the Washington building site on Scott Circle.

Walter N. Ezekiel, recently stationed at the Naval Ordnance Laboratory, Silver Spring, Maryland, and previously plant pathologist at the Texas Agricultural Experiment Station, is now principal mycologist, Bureau of Ordnance, Navy Department, Washington 25, D. C.

Wilfred J. Brogden has been appointed visiting lecturer on psychology at Harvard University for the summer term of 1946. Prof. Brogden will offer a course in the psychology of learning and a seminar on the conditioned reflex.

Melvin H. Knisely, associate professor of anatomy at the University of Chicago, delivered the ninth annual Nobel Pierce Sherwood lectureship at the University of Kansas, Lawrence, on 29 March. His subject was: "Intravascular Agglutination of Blood in Disease."

T. S. Lovering, professor of economic geology, University of Michigan, delivered two lectures under the sponsorship of the William Harvey Emmons Fund to the advanced students of geology at the University of Minnesota on 8 and 10 April.

Preston E. Cloud, Jr., now a member of the U. S. Geological Survey, has been appointed assistant professor of geology at Harvard University. On 1 July he will begin research and instruction in paleontology as successor to Dr. Percy E. Raymond, now emeritus professor of paleontology.

Dr. Madge Thurlow Macklin has joined the genetics group at the Ohio State University as senior research fellow of the National Research Council. She will work on the inheritance of human cancer.

Dr. Clarence W. Clancy, formerly on leave for service with the AAF as an aviation physiologist, has returned to his departmental duties with the rank of assistant professor of biology at the University of Oregon.

Dr. K. A. G. Strand, of the Sproul Observatory, Swarthmore College, has been appointed visiting associate professor at the University of Chicago beginning 1 October. Dr. Strand will be in charge of observational work in positional astronomy at the Yerkes Observatory and also at the McDonald Observatory of the University of Texas. He will be engaged primarily in photographic and visual observations of double stars.

John T. Emlen, now at The Johns Hopkins University, has been appointed associate professor of zoology at the University of Wisconsin. He will join the Wisconsin staff in September.

Laurence H. Snyder, of the Ohio State University, delivered the 21st Annual Herman M. Biggs Memorial Lecture before the New York Academy of Medicine on 4 April on the subject "Medical Genetics and Public Health."

Dr. Harold Macy, a dairy bacteriologist, was appointed associate director of the University of Minnesota Agricultural Experiment Station on 15 March. He first joined the staff in 1919 and in his new position succeeds Dr. Forrest R. Immer, whose death occurred recently.

Dr. John R. Dick, of Wheeling, West Virginia, has been appointed assistant professor of veterinary medicine at Ohio State University.

Dr. Joseph W. Ferrebee has been appointed assistant professor of medicine at the Harvard Medical School and Peter Bent Brigham Hospital where, in addition to his clinical teaching, he will head a program of research in fundamental aspects of the mechanism of hypersensitivity.

Colin G. Fink, professor of electrochemistry at Columbia University, was awarded honorary membership in the Electrochemical Society at the recent Birmingham Congress of the Society. Dr. Fink is a member of the AAAS Council and of the National Research Council, representing electrochemistry.

John R. Murlin has been honored by having the current volume (31) of *The Journal of Nutrition,* which covers the period January–June 1946, dedicated to him. According to his associates, Dr. Murlin, more than any other one person, has been responsible for the establishment of both the journal and its supporting professional society of research workers in the science of nutrition, the American Institute of Nutrition. Dr. Murlin served as the first editor of the journal, but gave up the responsibilities of his office in 1939, when he reached the age of 65 years and thus became an emeritus member of the American Institute of Nutrition.

In 1944, Dr. Murlin reached the age of 70 years and under normal conditions would have retired from his professorship at the University of Rochester. On account of the war and the shortage of personnel, however, he continued active for another year, and definitely retired in June 1945.

George W. Kidder, formerly assistant professor of biology at Brown University, has been appointed associate professor in the Department of Biology at Amherst College. His appointment was effective on 15 April 1946.

Horace G. Richards, associate curator of geology and paleontology at the Academy of Natural Sciences of Philadelphia, has received the "President's Award" from the American Association of Petroleum Geologists for his paper on "Subsurface stratigraphy of the Atlantic coastal plain between New Jersey and Georgia." The award was presented to Dr. Richards at the recent meeting of the Association at Chicago. During May, Dr. Richards will give the Distinguished Lecture Series on this subject before various geological societies in the country.

John D. Kraus, of the Radio Research Laboratory, Harvard University, has been appointed associate professor of electrical engineering at the Ohio State University.

Lyle R. Dawson, head of the Chemistry Department of the University of Kentucky, Lexington, addressed the Memphis Section of the American Chemical Society on 3 May. He said in part:

> The fissioning of atoms is no more astounding than the process of cell division which occurs in plants and animals. Perhaps it is actually much less complicated. The process is understood well enough to be quite easily controlled.
>
> Hence, when we speak of "controlling the atomic bomb," we realize full well that the fundamental problem is the control of the human element—particularly those tendencies which lead to bigotry, greed, selfishness, and the desire for power.

Prof. Emilio Trabucchi, from the Department of Pharmacology of Modena, is continuing his research activities. His laboratory survived the war and is also in need of books and periodicals.

Prof. Rabbeno, former director of the Department of Pharmacology in Genova, victim of racial persecution, is being reintegrated in his official position. He escaped deportation, like many other Jews in Italy, due to the generous help which the Italian people gave to those persecuted.—*Nicholas Ercoli* (Warner Institute for Therapeutic Research).

Announcements

At the Seventh Annual Meeting of the Association of Southeastern Biologists in Columbia, South Carolina, 19–20 April, legislation concerning the creation of a National Science Foundation was discussed and the following resolution adopted:

> WHEREAS, The members of the Association of Southeastern Biologists subscribe fully to the principle that "a full development of the nation's scientific and technical resources is essential for the national defense, national prosperity, and the national health and welfare"; and
>
> WHEREAS, The application of this principle is of unusual importance to the South; therefore,
>
> RESOLVED, That this Association, through its Secretary, urge all Congressmen representing this region to give their full support to the immediate passage of legislation providing for a National Science Foundation with adequate financial support.
>
> RESOLVED, That the Association go on record as giving its general approval to the bill, S. 1850, now before Congress and urge our Congressmen to give it their support.

The Department of State is seeking the counsel of leaders in the fields covered by that Organization in order to enlist the widest possible discussion of the future program of UNESCO. In the field of natural science and technology, steps are under way to appoint a group of consultants. It is hoped that this group will be able to enlist the widest possible cooperation among the groups of scientists in the United States and among individuals and organizations engaged in related activities in the fields of scientific research and technological developments.

The group will advise the State Department in providing means for informing all interested scientific groups and individuals in the United States of the plans and programs of UNESCO and in securing ideas and suggestions from groups and individuals regarding the functions and activities of UNESCO.

The newly appointed group of consultants includes: Detlev Bronk, Howard Meyerhoff, W. Albert Noyes, Harlow Shapley, and Merle Tuve.

A new degree, Doctor of Forestry, will be offered at Yale beginning in the fall of 1946, according to Dean George A. Garratt, Yale School of Forestry. By this action, Yale will become the second university in the Nation to offer work leading to this degree. At the present time, Duke University is the only institution in the country which grants this degree.

Standards of performance for the newly-established degree will be essentially the same as for the Ph.D. The minimum requirements will be six full terms of graduate study and research, although some students will require additional time. At least two consecutive terms of resident study must be carried on at Yale. All students must possess a reading knowledge of French and German before they are permitted to undertake their second year of graduate study.

The D. For. degree is not intended to compete with, or serve as a substitute for, the Ph.D., since it is expected that the student will continue to work in the Graduate School for the Ph.D. degree when his interests lie in such fields as forest economics, forest soils, forest ecology, and other subjects allied to the fundamental sciences.

The Yale School of Forestry, which is the oldest established forestry school in the United States with an unbroken history, currently has an enrollment of 75 students, the largest number registered since 1911.

The National Registry of Rare Chemicals, Armour Research Foundation, 35 West 33rd Street, Chicago 16, Illinois, has submitted their new needs in the following list of chemicals: cryogenine; 1,3-dinitrosoacetone; thymoform; 3,5,8,10-tetramethoxy pyrene; pyrene carboxylic acid methyl ester; daphnetin; 1,8-diamino naphthalene; cis-stilbene; isocrotonic acid; thianaphthalene; 1,3-dihydroxy indane; 5,5′-dimethyl thioindigo; dihydroxy thiophenes; dihydroxy thiapyrans; acetylene urea; cerotic acid; melissic acid; p-aminophenyl selenoic acid; hydroxy aspartic acid; elaidyl alcohol; β,β′-dithiocyano diethyl ether. Please communicate regarding these directly with the Registry at the address given above.

A new Division of Psychological Services has been established within the Department of Psychology at the University of Pittsburgh. Wayne Dennis, head of the Psychology Department, has announced the appointment of William R. Grove as director of the new Division. To make possible the additional work of the Division, as well as to provide for the instruction of the increased number of students in psychology, four men have been added to the teaching and service staffs: Victor C. Raimy, Roger W. Russell, John Valentine, and Ralph E. Jenson. The Psychology Department now has a staff of 20 psychologists.

The "tropical house," a source of mystery to all who visited the University of Pennsylvania's botanical garden during the war, was built in one of the greenhouses there and is approximately 5 feet wide and 10 feet long. Constructed of concrete blocks, it is equipped with automatic controls which provide a daily cycle of temperature and relative humidity similar to that encountered in the rain forests of some of the Pacific areas.

According to Wesley G. Hutchinson, associate professor of botany at Pennsylvania in charge of the project, it was begun in the summer of 1942 under the Committee on Optical Instruments but was transferred later to the Tropical Deterioration Administration Committee.

Upon completion of the house, the floor was covered with a thick layer of tropical leaves from the greenhouses, and these were heavily inoculated with various types of tropical fungi and mites, which are known to spread the fungi.

Although it was impossible to reproduce in a house of this type the complex biological balance of a tropical rain forest, subsequent comparison of the rate of deterioration of materials in the house with that of the same materials exposed in the Panama jungle showed remarkable similarity.

The house, it was pointed out, was the first tropical chamber of its type to be employed in studies of tropical deterioration, although several others on the same general plan were constructed later at service laboratories.

In addition to using the "tropical house" on the Pennsylvania campus, Dr. Hutchinson made several trips to the Canal Zone and the Republic of Panama in 1943 and 1944 to study deterioration at first hand. As a result of these trips it was decided to establish a semipermanent laboratory in the tropics to extend the work being done at the University and to provide a place for testing materiel and methods of deterioration prevention under actual jungle conditions. The laboratory was set up on Barro Colorado Island in the Panama Canal Zone in the summer of 1944. Barro Colorado, which covers about six square miles, is an island in Gatun Lake, set aside as a biological preserve by Act of Congress.

At this jungle laboratory a program of testing and research was carried on, from June 1944 until the termination of the OSRD contract in October 1945, by Spencer H. Davis, Jr., and J. A. Jump, two former graduate students from the University, who were alternately in charge of the work on the island under Dr. Hutchinson's direction.

In addition to the testing of more than 14,000 individual items under jungle conditions for the armed forces, research there was closely correlated with problems under investigation at the University.

Development of a method to prevent the fouling of optical instruments by fungus growth is regarded by Dr. Hutchinson as probably the most important contribution made by the scientists on the project for the duration of the OSRD contract.

The problem was finally solved by the use of a small capsule containing Cresatin (meta cresyl acetate) in ethyl cellulose. This capsule was fastened in the instrument, out of the path of the light rays, and the fungicide volatilized within the instrument sufficiently to produce an atmosphere lethal to fungi. Instruments treated in this manner and stored in jungle positions were still clean after two years exposure, although untreated instruments may become fouled within three weeks.

A dental specialists unit to conduct postgraduate refresher courses in Holland has been organized by the School of Dentistry of the University of Pennsylvania, it has been announced by George W. McClelland, president of the University.

Designed to aid in restoring dental practice in Holland to its prewar level, the courses will be given in Amsterdam this summer for 200 Dutch dentists and 100 from other European countries, all of whom were prevented by the war from keeping abreast of modern developments in dentistry.

Instruction, beginning on 15 July and continuing for one month, will be in the fields of dental therapeutics, roentgenology, denture service, oral medicine, and diagnosis. Each course will be of two weeks duration and will be repeated once.

Character and Personality, the psychological quarterly edited by Karl Zener, of Duke University, has changed its title to *Journal of Personality.* The primary purpose of the journal is to serve as a coordinating medium of publication for original scientific investigations within all the major research areas concerned with personality. These would include, among others, studies of personality structure, its biological aspects, its expression in behavior dynamics, and its development and functioning in varied cultural contexts. A more complete statement of the editorial reorientation appears in the September issue, which first carried the new title. Emphasis will be placed on experimental and various other empirical types of research within the field, but relevant theoretical and methodological contributions will be included.

The Gans Fund has just made awards for scientific research to the following, it has been announced by Dr. B. R. Weimer, of Bethany College, West Virginia: William Montagna, Long Island College of Medicine; Esther L. McCandless, Cornell University; Helen Golden and Burton Kallman, Bethany College. This fund of $50,000 was established in 1939 by Wickcliffe Campbell Gans to be used to assist undergraduates and graduates of the College in scientific research.

The Central Examining Board of the Naval Air Training Command, located at Pensacola, Florida, will continue its standardized testing program for naval aviation training. The key examiner posts, held by military personnel during the war, have been transferred to Civil Service. Lawrence Andrus, formerly assistant professor at the University of Chicago, has been appointed senior test development examiner and has as his assistant Raymond F. Monsalvatge, Jr. The Navigation representative on the board is E. J. Koestner, who previously filled this position in a military capacity.

The School of Dental and Oral Surgery of the Faculty of Medicine, Columbia University, announces the establishment of a limited number of fellowships for graduates of dental schools. These fellowships will offer opportunity for study in the following basic science departments of the University: anatomy, bacteriology, biochemistry, pathology, pharmacology, and physiology. For further information regarding qualifications and stipends, address the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York City.

Meetings

The British Association has found it impossible to arrange this year an annual meeting on the lines of the prewar meetings in provincial cities. A one-day meeting will therefore be held on 20 July in London. The British Medical Association has granted the use of its hall for this occasion. The presidential address will be delivered by Sir Richard Gregory. There will be no sectional meetings. Opportunity will be taken to receive delegates attending the Empire Scientific Conference organized by the Royal Society, and the Commonwealth Scientific Official Conference, at a luncheon on 20 July and at the subsequent meeting, and also, it is hoped, at a Sunday afternoon reception at Down House, the home of Charles Darwin. It is also hoped to receive some of the foreign delegates who are expected to be in England at that time. It is intended to resume normal meetings in subsequent years, and an invitation has been accepted for the meeting in 1947 to be held in Dundee, where the meeting in 1939 was cut short by the imminence of war. An invitation from Brighton for 1948 has also been accepted.—*Nature, London.*

The 46th General Meeting of the Society of American Bacteriologists will open at 10:00 A.M. on Tuesday, 21 May, and will close at 5:00 P.M. on Friday, 24 May. All sessions will be held in the Book-Cadillac Hotel in Detroit, Michigan. Features of the meeting include the following addresses: "Immunologic Aspects of Protein Metabolism": Paul R. Cannon, University of Chicago; "Some Applications of Physical Methods of Bacteriology": Ralph W. G. Wyckoff, National Institute of Health. Round-table and symposia sessions have been organized for the following topics: (1) Early History of Bacteriology in Michigan, (2) A Discussion of Influenza, (3) Streptomycin, (4) Bacterial Taxonomy, (5) Microbiological Problems in the Processing and Spoilage of Foods, (6) Air Disinfection, and (7) Immunological and Physiological Activity of Factors Derived From Pathogens. The Committee on Teaching will sponsor a panel discussion on the general topic of "The Teaching of Bacteriology at the Graduate and Professional Levels." The president of the Society, James Craigie, of the University of Toronto, will deliver the banquet address: "The Significance and Applications of Bacteriophage in Bacteriological and Virus Research." The $1,000 award of the Eli Lilly Company will be presented to a young bacteriologist in recognition of research accomplishments.

Approximately 140 research reports from members of the Society will include discussions of the following topics: morphology and cytology of bacteria, disinfection and chemotherapy, viruses, antibiotic production and induced resistance of bacteria to antibiotic agents, sanitary bacteriology, physiology and metabolism of bacteria, and industrial processes. Post-convention trips have been arranged to include visits to the University of Michigan, Michigan State College, and the Bureau of Laboratories of the Michigan Department of Health. During the convention various alumni luncheons and other meetings have been scheduled.

Persons who are interested in bacteriology, in addition to members of the Society, are cordially invited to attend the scientific sessions and to visit the exhibits. Programs of the meeting may be obtained from the secretary-treasurer of the Society, Dr. L. S. Parr, George Washington University, 1335 H Street, N.W., Washington 5, D. C., or from the chairman of the Program Committee, Dr. L. S. McClung, Indiana University, 420 Kirkwood Hall, Bloomington, Indiana.

The Cold Spring Harbor Symposium on Quantitative Biology will be held 2–12 July and will deal with the topic, "Heredity and Variation in Microorganisms." Among the 26 participants in the program will be several from Europe. Attendance will be limited to 80. For program and information, address the Biological Laboratory, Cold Spring Harbor, New York.

The Eastern Section of the Seismological Society of America is holding its annual meeting at the Institute of Geophysical Technology of St. Louis University, St. Louis, Missouri, 14 through 16 June. Following the presentation of technical papers, a special symposium is proposed on the discussion of the problems involved in the establishment of new seismograph stations.

Japanese Scientific Men

News of numerous scientific men in Japan and some of their publications are now reaching this country through U. S. Army and Navy officers and scientists who are going on missions to that country. More information has been received from the GHQ Natural Resources Section, of which Lt. Col. Hubert G. Schenck is the chief, than from any other source.

On 16 December 1945 there was a meeting of Japanese and American geologists at the Geological Institute, University of Tokyo. Of the American geologists, H. G. Schenck, T. A. Hendricks, Edward Sampson, H. S. Ladd, and F. C. Whitmore, Jr., contributed papers.

Thirty-five Japanese were present. Their names, with their specialties, are as follows: K. Asano (Foraminifera), B. Bessho (geology), Shoshiro Hanzawa (paleontology), Wataru Hashimoto (stratigraphy), S. Hori (economic geology), H. Huzimoto (geology and paleontology), H. Imai (economic geology), S. Iwao (petrology), Takeo Kato (economic geology), S. Kinshi (geography), Teiichi Kobayashi (historical geology, tectonics, stratigraphy, and paleontology), Jiro Makiyama (geology), Kosaburo Makino (mineralogy), Ichiji Mori (mining geology), Ryohei Morimoto (petrology), T. Nisiwaki (economic geology), Kei-iti Ohmori (petrology and mineralogy), T. Ohinomikado (Foraminifera), Y. Otuka (paleontology and stratigraphy), K. Sakakura (coal geology), K. Sawamura (petrology), S. Sekiguchi (interpreter), Ryuichi Sonobe (geology), T. Sudo (mineralogy), R. Sugiyama (petrology), Hisashi Suzuki (anthropology), Fumio Tada (geography), Fuyuji Takai (vertebrate paleontology), Jun-ichi Takahashi (economic geology), Seitaro Tsuboi (petrology), T. Tsujimura (physical geography and topography), Kunio Uwatoko (petroleum geology), T. Watanabe (economic geology), Hisakatsu Yabe (paleontology), and Shinji Yamane (geology).

Dr. H. Hattori, the director of the Imperial Biological Laboratory, on the Imperial Palace Grounds, and also director of the Tokugawa Biological Institute, both in Tokyo, is well and is still carrying on his scientific researches.

Prof. M. Matsuyama and Dr. N. Kumagai, of the University of Kyoto, are well and are continuing their gravimetric studies. Marquis Yoschichika Tokugawa, the founder of the Tokugawa Biological Institute which is devoted to botanical research, is well and active. His name has been in the papers with reference to a proposal made by him for curbing the political activities of the Emperor—a matter taken care of in the announced new constitution for Japan. —*T. Wayland Vaughan* (Washington, D. C.).

Letters to the Editor

The Serodiagnosis of Amebiasis

Early studies on the serodiagnosis of amebiasis yielded inconclusive results. It was not until the work of C. F. Craig, demonstrating the occurrence of complement-fixing antibodies in the serum of subjects infected with *E. histolytica*, that the development of a satisfactory serologic procedure appeared possible (*Amer. J. trop. Med.*, 1927, **7**, 225; 1928, **8**, 29; 1929, **9**, 277). However, the test possessed certain limitations, the major difficulty being experienced in the preparation of a uniformly reactive antigen. Recognizing this problem, C. W. Rees and his associates developed a technic for cultivating the specific organism in the presence of single bacterial symbionts; saline extracts of the cultures appeared more constant in antigenic activity, and a complement-fixation technic employing the new antigen was reported as yielding encouraging results in a preliminary study (*Amer. J. trop. Med.*, 1942, **22**, 581).

Studies undertaken at this laboratory have been designed to determine the principles governing the optimal adjustment of reagents and conditions in complement-fixation tests. As a result, a quantitatively standardized technic based upon the use of the 50-per cent unit of complement has been developed for use in studies on the serodiagnosis of amebiasis. An experimental antigen prepared according to a modification of Rees's method has been supplied by the Hynson, Westcott, and Dunning Company of Baltimore, Maryland. The employment of a constant source of preserved sheep's blood (S. C. Bukantz and the writers, *J. lab. clin. Med.*, in press), and the adaptation of the spectrophotometer, with simple graphic methods, to the standardization of the hemolytic reaction (*J. Immunol.*, in press), have contributed accuracy and facility to the technic. A total volume of 1.0 ml. is used in tests, 0.2 ml. being allotted to each of the reagents. A 1:2 dilution of serum in salt solution is tested, alone and with antigen, in the presence of three 50-per cent units of complement. Four hours at 3–6° C. are allowed for fixation, and 30 minutes in the water bath at 37° C. for hemolysis. The foregoing conditions are advocated at present in order to avoid such nonspecific reactions as appear with the use of more dilute serum and extended periods of fixation.

Present indications are that the test provides a valuable laboratory adjunct in the diagnosis of amebiasis, particularly in cases in which failure to isolate the specific pathogen prevents the establishment of a definitive diagnosis. The details of the technic and the evaluation of its sensitivity and specificity will be the subject of a later communication.

In this work, the writers have had the technical assistance of Rebecca Goodman and Helen Conway.

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Biology in College and High School

The letter by Charles A. Gramet (*Science*, 1946, **103**, 149) includes many provocative points, several of which I wanted to discuss. Space limits me to essentially one aspect.

In high school, as contrasted with chemistry and physics, biology holds an unfavorable position in local schools, being a nonrequired course, lacking laboratory periods, and being given to sophomores, about 15 years old. Also, as the course has become more "civic biology," a good trend for the high schoolers, it has become less a college preparatory course and still less an equivalent of a college biology course.

College offers a contrast. I do not refer merely to the plan of a year of college laboratory general biology. Large universities generally have separate botany and zoology departments. Each has an extensive year introductory course. Also, many medium-sized universities and colleges have to equal this setup. We give a year course in general zoology (8 credits) and a general botany course of similar length. Our majors must take both. Few other students take them.

My zoology has to be a thorough course with adequate systematic zoology included, as it must prepare for any or all of the advanced, junior and senior zoological courses, each usually a one-semester course, each crowded, without time for review of "general zoology," and each of which must essentially advance a student up to grad-