

Table 3 gives additional measurements of some deep-sea core samples and ocean carbonate. Samples from Cores C-10-5 and A-152-118 were previously measured (3). Core A-172-2 shows the normal, slow depositional rate. From lithologic evidence, it was suspected that this depth may have been quite recent. The fact that it is not emphasizes the complex character of these sediments. Not only are they frequently redistributed, but lithologically and paleontologically similar sections

TABLE 4
COUNT RATE AS A FUNCTION OF SAMPLE SIZE
FOR MODERN WOOD

Wt of carbon (g)	Net cpm	No. of samples
10.00	6.10 ± 0.08	1
8.00	6.07 ± 0.05	7
6.00	5.88 ± 0.09	2
4.00	5.71 ± 0.08	1
1.85	4.10 ± 0.10	2
0.95	3.07 ± 0.07	2
0.79	2.80 ± 0.09	1
0.63	2.40 ± 0.06	1

may be unrelated on the short time span over which radiocarbon dating can be applied.

The deep-ocean-water results will be described in more detail elsewhere (8). It seems from the meager data that deep water has measurably less radiocarbon than surface water and that the rate of turnover of the ocean must take place on a scale of thousands of years.

Table 4 shows the count rate as related to carbon sample weight. It is now possible to measure as little as 0.5 g of carbon instead of the usual 8.0 g. The precision is lower, however, and considerably more effort is required.

References

1. ARNOLD, J. R., and LIBBY, W. F. *Science*, **113**, 111 (1951).
2. LIBBY, W. F. *Ibid.*, **114**, 291 (1951).
3. KULP, J. L., FEELY, H. W., and TRYON, L. E. *Ibid.*, 565.
4. KULP, J. L., TRYON, L. E., and FEELY, H. W. *Trans. Am. Geophys. Union*, **33**, 183 (1952).
5. KULP, J. L., and TRYON, L. E. *Rev. Sci. Instruments*, **23**, 296 (1952).
6. LIBBY, W. F. *Radiocarbon Dating*. Chicago: Univ. Chicago Press (1952).
7. SAYLES, R. W. *Proc. Am. Acad. Arts Sci.*, **66**, (11), (1931).
8. KULP, J. L., and EWING, M. *Bull. Geol. Soc. Am.* (In press.)

News and Notes

Scientists in the News

Norman H. Beamer, of the USGS, has been designated district chemist in charge of quality-of-water investigations in Pennsylvania, with headquarters at Philadelphia. He has been acting district chemist since July 1951, when he replaced **Walter F. White, Jr.** Mr. Beamer has been assigned to the Pennsylvania investigations since 1946.

Herbert Blumer is now chairman of the Department of Sociology and Social Institutions on the Berkeley campus of the University of California. He had been a member of the University of Chicago faculty since 1928. He is the first vice president-elect of the American Sociological Society. For 11 years, from 1941 to 1952, he was editor of the *American Journal of Sociology*.

Henry B. Bull, formerly professor of chemistry in the Medical School at Northwestern University, is now professor and head of the Department of Biochemistry at the State University of Iowa.

Homer D. Chapman, chairman of the Department of Soils and Plant Nutrition at the University of California Citrus Experiment Station, will address horticultural scientists at the 13th International Horticultural Congress in London. After the conferences in London, Dr. Chapman will visit all the important citrus-producing areas of the Mediterranean region to study soils and plant nutri-

tional relationships. He will return to California by way of the citrus-growing areas of Pakistan, India, and Japan. During his leave of absence, extending until Jan. 15, **Daniel G. Aldrich, Jr.**, will serve as acting chairman of the department.

John Chipman, head, MIT Department of Metallurgy, is the 1952 recipient of Sauveur Achievement Award, presented by the American Society for Metals. The award was established by ASM in 1934 in honor of Albert Sauveur, late Harvard University professor, to recognize pioneering metallurgical achievements. Dr. Chipman has also been chosen by the Italian Metallurgical Society as the winner of the 1952 Losana Gold Medal for making the greatest contribution to international research and cooperation in the field of metallurgical engineering.

Alfred L. Copley, formerly of New York Medical College and New York University, has been appointed chargé de recherches de laboratoire at the new research laboratories of the Centre International de l'Enfance, Paris, a United Nations organization. Dr. Copley recently completed, at Woods Hole Marine Biological Laboratory, projects on bleeding and clotting, which he directed for the Atomic Energy Commission and the Office of Naval Research. He will continue his researches on blood and blood vessels in Paris.

Walton H. Durum has been transferred from Lin-

coln, Nebr., to Washington, D. C., and designated acting chief, Technical Reports Section, Quality of Water Branch, Water Resources Division, USGS. He will advise the chief of the branch on matters relating to technical reports and the relationship of those reports to the investigational work of the branch and the division.

Geoffrey Edsall, director of the Army Medical Service Graduate School's Immunology Division, is completing a trip to Europe and the Near East as a representative of the Armed Forces Epidemiological Board. He is visiting England, France, Italy, Egypt, Greece, Cyprus, and Israel, consulting with military and public health officials on typhoid immunization.

Maxwell Gage, senior lecturer in geology, Canterbury University College, Christchurch, New Zealand, a constituent college of the University of New Zealand, is visiting assistant professor of geology at the University of Illinois for the academic year 1952-53. Dr. Gage will teach courses in structural geology and allied subjects.

T. Gold, of the Cavendish Laboratory, Cambridge, has been appointed a chief assistant at the Royal Greenwich Observatory, England. Dr. Gold has recently been concerned with magnetohydrodynamics and the problem of the polarization of starlight. He was the first to suggest that point sources of radio noise (the so-called radio stars) may be of extragalactic origin and identifiable with galaxies of which the spectra indicate highly turbulent motion.

Assignments to three of four new positions in the Bureau of State Services, Public Health Service, include **Mark D. Hollis**, chief sanitary engineering officer, who has been named deputy bureau chief; **Jack C. Haldeman**, formerly chief of the service's Division of State Grants, who has been assigned, assistant bureau chief for Regional Office and External Operations; and **Joseph O. Dean**, formerly associate bureau chief for Staff and Management Services, who has been transferred to the newly created post of associate chief for program development.

T. C. Keeling, Jr., has been appointed deputy director of the chemical division of the National Production Authority. Mr. Keeling, who is assistant vice president and chemical division sales manager of the Koppers Company, Pittsburgh, is being lent to the government for a six-month term.

The New York Academy of Medicine has appointed **Harry D. Kruse** secretary to the Committee on Public Health Relations of the academy. Dr. Kruse succeeds **E. H. L. Corwin**, who retired. Dr. Kruse has been on the staff of the Milbank Memorial Fund since 1937.

G. Kenneth Lewis, the first faculty member of the University of Illinois Chicago Professional Colleges to be recalled to military duty during the Korean war, has been discharged and has returned to Chicago. Dr. Lewis, clinical assistant professor of otolaryn-

gology in the College of Medicine, was recalled to active duty as a colonel in the U. S. Army Medical Corps in 1950. At the time of his recall, he was commanding officer of the 374th Convalescent Center, a 3000-bed hospital unit. During most of his 24 months of service, he has been chief of surgery at Fort Campbell, Ky.

Martin E. McGreal, professor of chemistry at St. John's University, has been named head of the department, succeeding **Edward V. O'Brien**. The latter has been transferred to Baltimore as rector of the Roman Catholic Church of Our Lady of Lourdes. Dr. McGreal joined the faculty of St. John's in 1933, after a ten-year period as teacher of chemistry at New York University and the University of Pittsburgh.

Hans Neurath, professor of biochemistry, University of Washington, has returned from a trip to England and Denmark, where he participated in the discussions of the Faraday Society on the physical chemistry of proteins, held in Cambridge. In Copenhagen, he lectured at the Nordisk Insulin Laboratory and at the Carlsberg Laboratory, on insulin and proteolytic enzymes.

James K. Palmer, biochemist, has been appointed to the staff of the Connecticut Agricultural Experiment Station, and **Jerry S. Olson** has joined the staff of the Forestry Department. Dr. Palmer replaces **A. N. Meiss**, and Dr. Olson fills the post formerly held by **John Krier**.

David Pomeroy, formerly of the Department of Physics at the University of Florida, has joined the staff of the Biophysics Department at the Army Medical Research Laboratory, Fort Knox, Ky.

W. Malcolm Reid, who has been studying the effects of animal parasites upon the poultry industry as a Fulbright research scholar in Egypt, has joined the Technical Cooperation Administration (Point IV) staff of the American Embassy in Cairo. His new position is that of research adviser in animal hygiene. His leave of absence from Monmouth College has been extended for one year.

Robert W. Schiessler, associate professor of chemistry at Pennsylvania State College, has been chosen for the \$1000 American Chemical Society award in petroleum chemistry. It will be presented at the meetings of the society in Los Angeles in the spring of 1953. The award is underwritten by the Precision Scientific Company.

Thomas Segundo, Papago tribal leader, has been selected as the recipient of the 1952 Indian Achievement Award, a bronze medal presented annually to an Indian by the Indian Council Fire. Mr. Segundo is chairman of the Papago Tribal Council, and has done much to advance the interest and welfare of his people, sacrificing his ambition for an engineering education to serve them.

Education

In celebration of the 25th anniversary of its medical center, the **University of Chicago** conferred an honorary D.Sc. degree on Anton J. Carlson, president of the AAAS in 1944; he was cited as "an inspiring and stimulating teacher and a critical investigator." Another Chicago alumnus, Percival Bailey, of the University of Illinois, was among the seven scientists who received honorary degrees. The anniversary program began with the Dallas P. Phemister Memorial Lectures, given by Evarts A. Graham and Alfred Blalock. Twenty-six alumni of the medical school were awarded Distinguished Service Certificates during the three-day meeting.

Educational Testing Service has announced the formation of an Evaluation and Advisory Service for school and college test users. Paul Diederich will become director of the new unit, and Anna Dragositz assistant director. The service will be particularly concerned with the use of tests to evaluate results of school and college educational programs. For full information, address the director of the service at 20 Nassau St., Princeton, N. J. Western institutions should direct their inquiries to 4641 Hollywood Blvd., Los Angeles 27.

Florida State University has appointed John J. Spitzer, of Dalhousie University, assistant professor in physiology. A. C. Higginbotham, associate professor of physiology, has returned to the university after a leave of absence at St. Louis University School of Medicine.

The program of the **New York Academy of Medicine** Lectures to the Laity, beginning on Oct. 22, will feature the following speakers: Franz G. Alexander, John A. Rose (Nov. 5), Otis R. Rice (Nov. 19), W. Horsley Gantt (Dec. 3), William Malamud (Jan. 7), and P. Le Corbeiller (Jan. 28).

A **Pediatrics Conference** will be held in Galveston Nov. 17-21, under the auspices of the Postgraduate Division of the University of Texas Medical Branch, the Department of Pediatrics, the University of Texas Child Health Program, the Texas Medical Association, the State Department of Health, the Texas Academy of General Practice, and the University of Texas Postgraduate School of Medicine. Guest speakers will include Douglas M. Buchanan, Donald E. Cassels, J. Louzoya (Mexico City), Edward L. Pratt, and Lawson Wilkins.

The Department of Physics of the **University of Texas** has added the following to its faculty: Joseph C. Grosskreutz, of California Research Corporation; Eugene Ivash; and Walter Millett.

The **University of Washington** has appointed Richard B. Goldschmidt, of the University of California, as Walker-Ames professor of zoology and Ernst Mayr, of the American Museum of Natural History, visiting professor of zoology. During the autumn

quarter, Dr. Mayr will conduct a graduate course on systematics and evolution, and Dr. Goldschmidt will deliver a series of lectures on "Glimpses of the Advancing Front of Genetics."

The **University of Wisconsin** has named Frank MacFarlane Burnet, director of the Walter and Eliza Hall Institute for Medical Research and professor of experimental medicine at the University of Melbourne, to the Knapp visiting professorship. He will present a course of six lectures on "Problems in the Biology of Infectious Diseases."

Grants and Fellowships

The **Committee on Growth** of the National Research Council, acting for the American Cancer Society, is accepting applications for fellowships and for grants for Scholars in Cancer Research. Applications for postdoctoral fellowships for training and research in all branches of biological, chemical, and physical sciences and of investigative medicine applicable to the study of growth, must be received by *Dec. 10*, for work to begin July 1. Applications for grants should be submitted by an institution on behalf of a candidate prior to *Jan. 1*. With these awards a grant of \$6000 a year for three years is paid to the institution. Three British-American Exchange Fellowships are also available, through the cooperation of the British Empire Cancer Campaign Fund. In this program the committee will favor a proposed training program in specialized scientific areas in which superior facilities exist in Great Britain. For full information address the executive secretary of the committee, 2101 Constitution Ave., N.W., Washington 25, D. C.

The Board on Overseas Training and Research of the **Ford Foundation** has announced awards aggregating \$473,850, for periods of from one to three years, to enable 83 American college graduates to initiate or continue studies on various problems concerning Asia and the Near and Middle East. The recipients, 75 men and 8 women, were selected from more than 700 qualified applicants and range in age from 21 to 43. No decision has been reached with respect to continuing the program a second year.

The **National Foundation for Infantile Paralysis** has available a limited number of postdoctoral fellowships for candidates whose interests are research and teaching in medicine and the related biological and physical sciences. Fellowships cover a period of one to five years, and stipends range from \$3600 to \$7000 a year. Institutions accepting fellows receive additional compensation. Eligibility requirements include U. S. citizenship, or declared intention of becoming a citizen, sound health, and an M.D., Ph.D., or equivalent degree. Complete information may be obtained from the foundation's Division of Professional Education, 120 Broadway, New York 5.

United Cerebral Palsy has made grants totaling \$109,695 for research and training extending from

Oct. 1 to May 1. Seven grants for new research (\$23,350) were made in addition to \$66,922 for renewals. Children's Medical Center, Boston, will receive \$15,000 for the training of personnel, and the Children's Rehabilitation Institute, Cockeysville, Md., \$15,000 for the same purpose.

In the Laboratories

Allied Chemical & Dye Corporation is starting a million-dollar expansion of its Nitrogen Division research and engineering facilities at Hopewell, Va. The new buildings will have an area of 35,000 square feet of floor space and will make additional space available for the work of the Ammonia Department.

Chemstrand Corporation has appointed Bruno R. Roberts research scientist in the Research and Development Department. Dr. Roberts was with Monsanto Chemical Company for nine years, and recently has been engaged in fiber research at Chemstrand's Dayton laboratories. Other new appointments in the department include David B. Capps, Maynard E. Hall, James E. Johnson, and Brewster B. Eskridge.

Consolidated Engineering Corporation has opened new and larger offices for its subsidiary, CEC Instruments, Inc., at 285 Madison Ave., New York. Walter J. Beagan will be in charge.

Recent visitors from abroad at the **Eastern Regional Research Laboratory**, Philadelphia, were S. K. Barat, Central Leather Research Institute of India; W. B. Brittain, Science Service, Ottawa, Canada; and Hans Deuel, Agricultural Chemistry Institute, Zurich.

F. G. Ludwig Associates, formerly of Woodbridge, Conn., have moved to a new location in Deep River, Conn.

The **Memorial Center for Cancer and Allied Diseases**, New York, has completed its Physiology Laboratory-Betatron Building, a four-story building housing a 24 mev betatron, operating rooms for animal surgery, and extensive research laboratory facilities. The building completes the program the center began in 1939 with the opening of Memorial Hospital. Since then the Strang Cancer Prevention Clinic, Sloan-Kettering Institute, the McCann Children's Pavilion and James Ewing Hospital, and the Tower Outpatient Building have been added.

Minnichlor, Inc., a new firm at Enfield, Minn., 50 miles west of Minneapolis, is producing water-soluble chlorophyll from alfalfa. By-products of extraction, including carotene, xanthophyll, phytol, other vegetable fats, and spent meal, will also be marketed by the Minnesota firm.

Nuclear Research and Development, Inc., of St. Louis, have opened a branch laboratory and sales office in New York, at 33-61 Crescent St., Long Island City.

Changes in the **Office of Naval Research** include the return of Henry A. Imus from a year's service as

scientific liaison officer at the London Branch. He will reassume his duties as head of the Physiological Psychology Branch, Washington, D. C. Leo A. Shinn, formerly in charge of the organic chemistry program of the Chemistry Branch, has replaced Louis Levin as head of the Biochemistry Branch, Biological Sciences Division. George Sprugel has been made acting head of the Biology Branch of the division while Sydney R. Galler is on a year's leave of absence to participate in a series of cruises sponsored by the Undersea Warfare Branch. One of the phenomena to be investigated will be the deep scattering layer.

Meetings and Elections

The **Association of Geology Teachers**, meeting in Boston with the Geological Society of America, will convene on Nov. 15 to hear the presidential address of Kurt Lowe, City College of New York; a discussion of "The Role of the Geology Teacher in Conservation Education," by Julius Kaikow; and a talk by Charles Behre on what makes a good geology teacher and how he can be developed.

The **Association of Military Surgeons of the United States** will meet at the Statler Hotel, Washington, D. C., Nov. 17-19, under the presidency of Harry G. Armstrong, Air Force surgeon general. A symposium on reserve affairs and reports on the newest advances in combat medical services and on air evacuation of the wounded, by officers recently returned from Korea, will feature the sessions. The program will include the following speakers: Louis H. Bauer, Otto Brandhorst, Melvin Casberg, J. A. McCallam, Lamont Pugh, Isador S. Ravdin, Howard A. Rusk, Oscar P. Snyder, and William L. Wilson.

The **National Academy of Sciences** will hold its autumn meeting Nov. 9-12 at Washington and St. Louis universities. Scientific sessions on Monday, Tuesday, and Wednesday mornings and on Wednesday afternoon will be held in Wayman Crow Hall and Louderman Hall, Washington University. Two of the eight sessions will consist of invited papers; a program in neurophysiology will celebrate the centenary of the birth of Cajal, and a symposium on "The Biochemical and Biophysical Regulation of Cellular Activity" will attempt to show the present status of that problem. A public lecture by Charles Allen Thomas, of Monsanto Chemical Company, on "The Problem of Resources" will be given in the Law School Auditorium of St. Louis University. Abstracts of the papers presented at the meeting will appear in the Nov. 14 issue of SCIENCE.

Xi Sigma Pi, honorary forestry fraternity, has elected the following officers to serve for the next two academic years: forester, Lenthall Wyman; associate forester, James S. Bethel; secretary-fiscal agent, William D. Miller. All three men are with the School of Forestry of North Carolina State College. The fraternity will publish a new directory of members in 1953.