common and (probably) essential structural feature of all these compounds is an actual or virtual γ-aryl-(mostly phenyl-)-N-methylpiperidine system.

The relationship between morphine and methadone, postulated in the foregoing, is brought out in structure (VI), a composite structure of morphine and methadone, showing in thin lines structural features peculiar to morphine, in broken lines those peculiar to methadone, and in heavy lines those common to both.

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News and Notes

XIV International Congress of Zoology, 1953

THE second post-war International Congress of Zoology was held in Copenhagen, Denmark, Aug. 5–12. Forty-six countries were represented, with a delegate from the United Nations in addition, with a total of 562 delegates and members. The largest delegation was that of Denmark (104), followed by Germany with 70, the United States 59, the United Kingdom (without the Dominions) 57, Sweden 30, Italy 24, Netherlands 19, Norway 13, Finland 4, and others. The Russian delegation of 6 members took an active part in the meetings, speaking in other languages as well as in Russian, and in general exhibiting a much greater degree of freedom and of willingness to cooperate in scientific matters with the western nations than had been the case in Paris in 1948. A gift of some 150 bound volumes of recent Russian zoological publications was made to the University of Copenhagen.

Fifteen papers were presented by the members at general meetings, and about 265 to the sixteen sectional meetings. These were arranged for Nomenclature (7); Paleozoology (6); Zoogeography (10); Evolution and Genetics of Populations (12); Cytology (13); Morphogenesis (41); Animal Psychology (8); Comparative Physiology (43); Serology and Paper Chromatography (6); Parasitology (11); Nematology (10); Terrestrial Ecology (14); Hydrobiology (25); Terrestrial Arthropods (21); Invertebrates (11); and Vertebrates (17); the figures in parenthesis are the number of papers offered for each section. There were in addition two major Colloquia, one, with 13 invited papers, on the Deep Sea Bottom Fauna, and one on the problems of zoological nomenclature.

The Colloquium on Zoological Nomenclature was called by the International Trust for Zoological Nomenclature to meet July 29–Aug. 4, in advance of the Congress proper. Nearly fifty representatives of societies and institutions interested in these problems convened, and their long and arduous meetings continued throughout the week scheduled, often until midnight. The proceedings of the Colloquium made it possible to present 142 specific recommendations to the Section for Nomenclature of the Congress, all of which had been exhaustively discussed by the members of the Congress attending the Colloquium. With this previous discussion, it was possible to take action on the numbered proposals, with active discussion only of certain controversial items. Among these was the modification of the so-called Law of Priority in the interest of nomenclatural stability. Strong support for such modification came from the zoologists in general, and was opposed mainly by those who seek to divorce zoological nomenclature, as an independent activity, from zoology. (See "Zoological Nomenclature: Decisions taken by the Fourteenth International Congress of Zoology," by Francis Hemming, in this issue, p. 131.)

The results of the action of the Colloquium and of the Section for Nomenclature were ratified by the Congress as a whole and accepted by the International Commission on Zoological Nomenclature which met concurrently. Certain actions of the previous Congress in Paris (1948) were reversed, and various problems, postponed by the Paris congress for further study and for action in 1953, were dealt with. Comprehensive revision and rewriting of the rules, as of 1953, was thus made necessary, and this was placed in the hands of J. Chester Bradley, Cornell University, President of the Commission. The resignation of Francis Hemming, secretary to the Commission, was accepted, to take effect in 1955, with division of the duties of that office by the establishment of a separate post for the editor of the *Bulletin for Zoological Nomenclature*. Mr. Hemming received a special vote of thanks for his efforts throughout his tenure of office and especially for his conduct of the Colloquium preceding the Congress.

The meetings of the scientific sessions and especially the discussions following individual papers were extremely stimulating, and of course scarcely less so were the continuing informal discussions that went on in the corridors of the lecture halls, over luncheon

and tea tables, and elsewhere into the night. The European emphasis on Morphogenesis and Comparative physiology is reflected in the preponderance of papers in those sections.

Reports of the results of investigations of the Danish oceanographic expedition on the *Galathea* may be named as the highlight of the meetings, with a public illustrated lecture by Anton Fr. Bruun, leader of the expedition, and exhibition of specimens from the greatest depths (the Philippine trench) thus far reached with collecting apparatus. These results were in turn the principal interest of the Colloquium on the Deep Sea Bottom Fauna.

The arrangements made by the organizing committee, headed by R. Spärck, with Anton Fr. Bruun as Secretary General and H. Volsøe as Treasurer, were extremely satisfactory. The several excursions arranged for the members to North and South Zealand and to the Island of Bornholm in the Baltic were well attended and proved to be of great zoological and geographic interest. The Congress accepted the invitation of Great Britain to hold the next Congress, scheduled for 1958, in London.

KARL P. SCHMIDT

Chicago Natural History Museum
Chicago, Illinois

Dinner for William D. Coolidge

William D. Coolidge, of Schenectady, N.Y., former vice president and director of research for the General Electric Company, was honored on his 80th birthday in Cleveland, Oct. 19, by more than 100 friends and associates. Dr. Coolidge is noted chiefly for his discovery in 1908 of a means for making a tough metal, tungsten, into an extremely pliable one which could be drawn into wire one-sixteenth the diameter of a human hair. That discovery made practical the use of tungsten as filaments in lamp bulbs, and is chiefly responsible for their long life and high efficiency. Later Dr. Coolidge extended this new knowledge by developing an x-ray tube of a type in virtually universal use today.

Four large units of General Electric, which owe their present status to Dr. Coolidge's inventions, united to honor the scientist with a reception and dinner at Nela Park in the Lighting Institute. They are the Lamp Division, Electronics Division, X-Ray Department, and Carboloy Department. Tributes to Dr. Coolidge were given by leaders of the business and scientific world. Clyde Williams, director of the Batelle Memorial Institute of Columbus, Ohio, was the chief speaker. C. Guy Suits, G-E vice president and director of research, also addressed the meeting. William H. Robinson, Jr., manager of public relations for the G-E Lamp Division, was toastmaster.

On Oct. 20 Dr. Coolidge participated in the program of the 13th annual convention of the Society for Nondestructive Testing, Inc., by presenting on behalf of the Society and the G-E X-Ray Department, the first annual William D. Coolidge Award to the author of the year's outstanding paper on x-ray. Winner of the award is D. T. O'Connor, chief of the Radiology Section, U.S. Naval Ordnance Laboratory, White Oak, Md.

As early as 1941, W. D. Coolidge was associated with the Atomic Bomb project. He was appointed to a committee of 6 to evaluate the military importance of uranium and to recommend the amount of funds which should be devoted to exploring the question. When the atomic bomb was tested at Bikini in 1946, Dr. Coolidge was on hand as a special observer for the Manhattan District. Later the same year he helped organize the laboratory at the Hanford Works, the plutonium-producing plant near Richland, Wash., which G-E operates for the Atomic Energy Commission

Even a brief summary of Dr. Coolidge's researches and inventions—which have benefited all mankind—reads like the achievements of a whole laboratory rather than those of a single man. His x-ray equipment alone has saved many lives and prevented untold suffering. The efficient, low-cost, artificial lighting which he helped to produce has increased productivity in our factories, safety on our streets and highways, and comfort and beauty in our homes. His tungsten developments practically eliminated the ignition troubles once prevalent in our automobiles, and in two great wars he gave substantial help to our armed forces. His inventions include the first electronic submarine detector.

Science News

In the Dec. 26 issue of the British journal *Nature,* F. Friedberg, L. M. Marshall, and L. H. Newman of Howard University Medical School have reported the discovery of an unknown **acid in the brain. The** acid contains 54.3% carbon and 10.4% hydrogen. It was found by the partition chromatography method of separating chemicals in a mixture. Silica gel was used as the medium for the separation.

The **chemical synthesis of sugar,** attempted futilely for years, was reported at the 124th national meeting of the American Chemical Society by Raymond U. Lemieux, a Canadian, and George Huber, a Swiss; both are on the staff of the National Research Council of Canada. This accomplishment promises to make the synthesis of many complicated substances a matter of easy routine; it also permits biochemists to prepare sugar containing radioactive atoms that can be traced through life processes.

Under the electron microscope, **details of the chloroplast,** site of the process of photosynthesis, have been photographed for the first time by two scientists at the University of California at Los Angeles, Morris Cohen of the botany department and Edwin Bowler of the engineering department. A side view of the tobacco leaf chloroplast in a section about 0.000002 in. thick reveals two kinds of stratification. Stacks of finely lamellate grana lie embedded in a general system of thicker lamellae which traverse the chloro-

plast; chlorophyll is localized in the grana. The layering of the chlorophyll in the fine lamellae of the stacked grana may be involved in the absorption of light.

A **new carbon-dating process** developed by four University of Manitoba scientists makes possible the dating of any carbon-bearing matter—human bones, fossils, and vegetation—from as far back as 40,000 years and, for average samples, within 10 years of actual age. It was not until 1950 that any accurate technique for the dating of archaeological remains was developed; then W. F. Libby and his colleagues at the University of Chicago perfected a carbon-dating method that estimates ages of specimens up to 25,000 years by measuring the activity of carbon-bearing samples in a screen-wall type of Geiger counter. The new process utilizes a liquid scintillator, with the material to be dated incorporated in the liquid.

The **1953 Trans-Pacific Expedition,** fifth postwar expedition of the University of California's Scripps Institution of Oceanography, returned to San Diego recently aboard R/V *Spencer F. Baird.* Under the leadership of Warren S. Wooster, scientists of the Scripps Institution spent four and a half months in oceanographic exploration of the North Pacific Ocean. The expedition was sponsored by the Office of Naval Research and the Bureau of Ships of the United States Navy. Findings will be published in appropriate Japanese and American journals.

The major scientific program was a study of the relationship between the major circulation features, the distribution of physical and chemical properties, and the distribution of plankton and nekton. One hundred thirty-five stations were occupied in sections across the prominent permanent currents of the North Pacific and the deep Bering Sea (Fig. 1). In addition to measurements of temperature, salinity, dissolved oxygen, phosphate total phosphorus, silicate, and iron to depths as great as 6000 meters, collections at various depths were made of fish, zooplankton, phytoplankton, and bacteria. The deepest biological collections were made with the midwater trawl and the diving dredge, bringing up organisms from as deep as 5100 meters.

Between stations a continuous echo-sounding record was kept. Several new sea mounts were discovered, and numerous crossings of the Aleutian and Japan Trenches were made. The geological program also included bottom sampling by coring and dredging, and the collection of volcanic material from Bogoslof and Bayonnaise Rocks.

One important outcome of the expedition was the opportunity for Japanese and American oceanographers to exchange ideas. The first American oceanographic vessel to reach Japan since the *Carnegie's* visit in 1929, the *Baird* had thousands of Japanese come aboard during her stay in Hakodate, Tokyo, and Kobe. Members of the scientific party also had an opportunity to discuss their work with Emperor Hirohito as well as with leading Japanese scientists. The following seven Japanese scientists participated in the work in Japanese waters: Chikayoshi Matsudaira, Tohoku University; Sigeru Motoda, Hokkaido University; Albert Y. Takenouti, Hakodate Marine Ob-

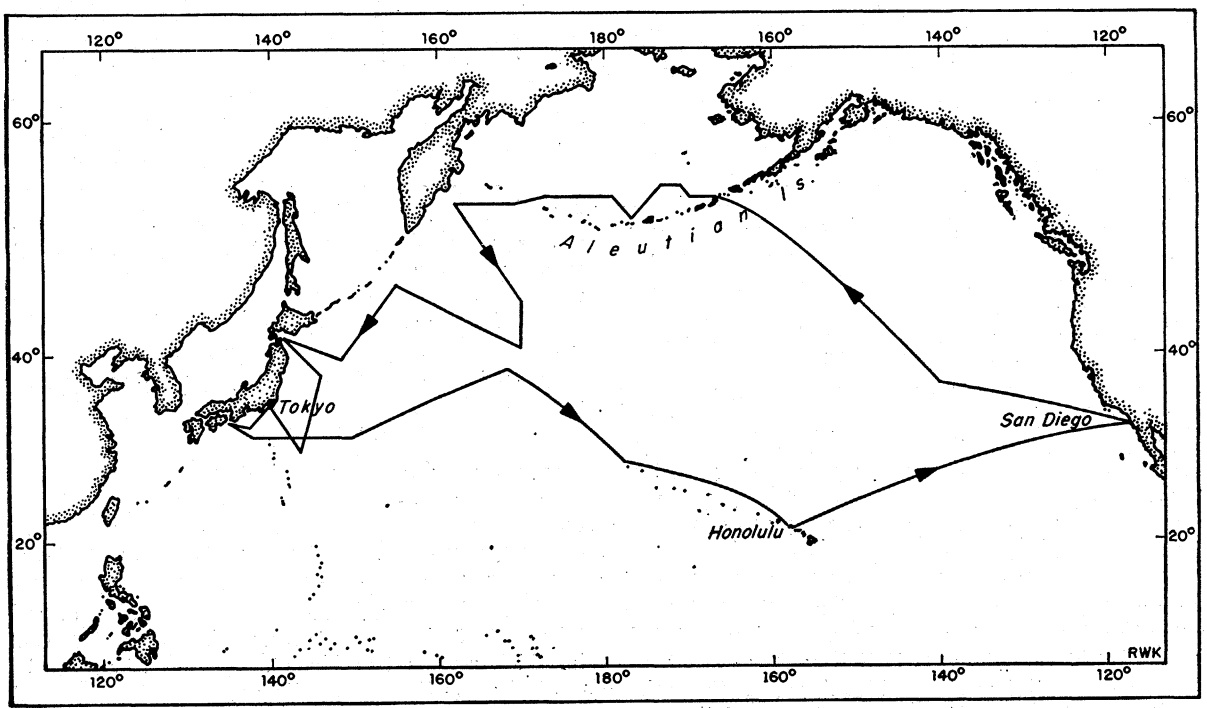

FIG. 1. Trans-Pacific Expedition track. [Courtesy of Warren S. Wooster.]

servatory; Michitaka Uda, Tokyo University of Fisheries; Hiroshi Niino, Tokyo University of Fisheries; Takao Sakamoto, Tokyo University; and Daitaro Shoji, Japanese Hydrographic Office.

The *Harvard Alumni Bulletin* of Nov. 28 presents a well-balanced article on **Wendell H. Furry,** associate professor of physics at Harvard University, entitled "The Furry Case: A Summary of the Facts and an Analysis of Their Significance as They Appear to a Harvard Lawyer," by Livingston Hall, vice-dean and professor of law at the Harvard Law School.

Scientists in the News

Roger Adams, head of the University of Illinois Chemistry Department for 28 years, has asked to be relieved next fall of administrative duties. He will continue as a research professor. Prof. Adams has been associated with the university since 1916.

President Eisenhower recently named **Allen V. Astin,** director of the Bureau of Standards, as chairman of the government's Interdepartmental Committee on Scientific Research and Development. Dr. Astin has been a member of the committee for several years. The chairmanship is rotated annually.

The American Institute of Chemical Engineers has presented its 1953 Junior Member Award to **Leroy Alton Bromley,** associate professor of chemical engineering at the University of California, Berkeley. The award is granted for outstanding papers published in *Chemical Engineering Progress* for the preceding three-year period by a junior member. Dr. Bromley received recognition for his articles "Heat Transfer in Stable Film Boiling" and "Pressure Drops for High Vacuum Flow of Air Through Annular Sections" (with C. R. Alancraig).

The Sedgwick Memorial Medal for distinguished service in public health, highest honor of the American Public Health Association, has been presented to **Carl E. Buck** of the University of Michigan School of Public Health.

In April **Charles L. Buxton** of the College of Physicians and Surgeons, Columbia University, will join the faculty of the Yale University School of Medicine as professor of obstetrics and chairman of the department. He succeeds Herbert Thoms, who retired last June after 31 years of service.

Kenneth N. Campbell, for many years a professor of chemistry at the University of Notre Dame, has resigned to accept the position of director of medicinal chemistry at the Mead Johnson Research Laboratories, Evansville, Ind. His wife, **Barbara K. Campbell,** has also resigned from her post as lecturer in chemistry at Indiana University in order to become a special consultant for Mead Johnson.

Benjamin Castleman has been appointed clinical professor of pathology at the Harvard Medical School and chief of the Department of Pathology at the Massachusetts General Hospital. An authority on pathological conditions associated with hypertension and disorders of the parathyroid and thymus glands, Dr. Castleman has been working at the Massachusetts General Hospital since 1931, and in 1935 became a member of the Harvard teaching staff. He has been acting chief of the Hospital's Department of Pathology since 1951.

Ernest Carroll Faust, professor of parasitology in the Tulane University School of Medicine, was recently honored by exercises in observance of his 25 years of service. A portrait of Dr. Faust, sponsored by his associates and students, was presented to the school following a eulogy by Henry F. Meleney, research professor of medicine at Louisiana State University.

Lester M. Field has resigned from Stanford University to accept appointment as professor of electrical engineering at the California Institute of Technology, where he has been a visiting professor since Jan. 1, 1953.

The Association of Geology Teachers recently named **Fritiof Fryxell,** professor of geology at Augustana College, Rock Island, Ill., as the first winner of the Neil Miner award. This was established last year to recognize meritorious accomplishment in stimulating interest in the earth sciences. Prof. Fryxell has been teaching at the college since 1923, and during most of this time has maintained a "one-man department." A tribute to Prof. Fryxell's effectiveness as a teacher is the fact that during his tenure over 100 students have graduated from Augustana with degrees in geology; most of these students did graduate work to the masters level and 26 have received or are due to receive the doctor's degree. Dr. Fryxell also has conducted important research both in this country and abroad.

Paul Fugassi, professor of chemistry at the Carnegie Institute of Technology, has been appointed director of the Coal Research Laboratory. The laboratory recently has been made a part of the Chemistry Department.

Jacob Furth has resigned as head of the Oak Ridge National Laboratory Biology Division's Pathology and Physiology Section to become a staff member of the Department of Pathology, Children's Medical Center, Harvard University. In addition to acting as a consultant to the Center at large, he will be associate director of research at the Children's Cancer Research Foundation and chief of the Experimental Pathology Section.

Friends of **Carl G. Hartman,** associate director of the Ortho Research Foundation, recently presented him with an oil portrait of himself in recognition of his 75th birthday.

Joel H. Hildebrand, emeritus professor of chemistry at the University of California, has been chosen president-elect of the American Chemical Society. President for 1954 is **Harry L. Fisher,** head of the Department of Rubber Technology of the University of Southern California; he succeeds Farrington Daniels, head of the University of Wisconsin Department of Chemistry.

Herbert Knutson, formerly head of the Department of Zoology at the University of Rhode Island, has been named head of the Department of Entomology at Kansas State College, Manhattan. He succeeds **Roger C. Smith** who will devote full time to research.

Marcus D. Kogel, New York City Commissioner of Hospitals since 1949, has resigned his post to become dean of the Albert Einstein College of Medicine. **Abraham White,** formerly of the University of California Medical Center in Los Angeles, will serve as associate dean.

Charles C. Lauritsen, professor of physics at the California Institute of Technology, has been made a Knight Commander of the Danish Order of Dannebrog. The decoration is conferred on persons who perform meritorious services for Denmark, or on Danes living abroad who have made outstanding contributions in diplomacy, science, or the armed services. During the war Dr. Lauritsen served with the National Defense Research Committee and the Office of Scientific Research and Development in Washington and at the California Institute. He was technical director of the Institute rocket project.

Elbert P. Little, former chief of the computation branch, Aeronautical Research Laboratory, U.S. Air Force, has been named technical director of Wayne University's Computation Laboratory.

William F. Mengert, professor of obstetrics and gynecology and chairman of that department in Southwestern Medical School of The University of Texas, has been appointed chairman of the Obstetrics and Gynecology Test Committee of the National Board of Medical Examiners. Appointments to the Board are customarily for a term of six years.

In November the University of Rennes, France, conferred the title (honoris causa) of Docteur de l'Université de Rennes upon **Marston Morse,** professor of mathematics at the Institute for Advanced Study, Princeton.

Effective Jan. 1, **Ralph S. Muckenfuss** became the first full-time scientific director of the Naval Biological Laboratory, which is located at the Naval Supply Center, Oakland, Calif, and is a part of the Department of Bacteriology, University of California, Berkeley. He has been Assistant Commissioner of Health and director of the Bureau of Laboratories of the New York City Department of Health, and is well known for his work in the field of virology.

Dr. Muckenfuss replaces **Albert P. Krueger,** who has served as scientific director on a part-time basis since the establishment of the Office of Naval Research project in 1946 and who also organized the laboratory's predecessors—Naval Laboratory Research No. 1 in 1934, and Namru I during World War II. Dr. Krueger, a professor of bacteriology and lecturer in medicine, will become chairman of the Board of Advisors of the laboratory.

Linus Pauling, chairman of the Division of Chemistry and Chemical Engineering at the California Institute of Technology, left in December for a trip around the world during which he will lecture in Greece, Israel, India, and Japan. He expects to return in mid-March.

Anita H. Payne and **Lola S. Kelly,** research fellows engaged in postdoctoral work at the Donner Laboratory, University of California at Berkeley, have received the $2000 Kappa Kappa Gamma Cancer Research Award for outstanding achievement by women in the field of cancer research. The prize-winning paper submitted by Doctors Payne and Kelly was the most recent of a series of joint papers covering their study of postirradiation sensitivity and behavior of malignant tumors.

John Robert Raper, an associate professor at the University of Chicago and on authority on the physiology of fungi, has been appointed professor of botany at Harvard University, effective Feb. 1.

Oscar Riddle, former staff member of the Department of Genetics, Carnegie Institution, has been elected a Fellow of the Royal Society of Arts, London.

W. Roman has been appointed head of the Division of Biochemistry at the Institute of Medical and Veterinary Science in Adelaide, South Australia. He will continue to edit the journal, *Enzymologia.*

Harold L. Rosenthal has succeeded **Joseph V. Fiore** as chief of chemistry at Rochester General Hospital, Rochester, N.Y. In addition to supervising all clinical chemistry, Dr. Rosenthal will conduct research and act as consultant on research projects.

Peter Pen Tieh Sah, whose field is the creation of new drug compounds for animal and human medicine, has joined the faculty of the University of California School of Veterinary Medicine at Davis.

Phil C. Schreier has been appointed acting chief of the Division of Obstetrics and Gynecology at the University of Tennessee College of Medicine and the John Gaston Hospital. Dr. Schreier succeeds **Frank Whitacre** who resigned to join the staff of Vanderbilt University College of Medicine.

William C. Steere, Stanford professor and internationally known botanical expert, has accepted an invitation to serve as president of the Eighth International Botanical Congress to be held at Paris in July, 1954. Dr. Steere recently returned from Alaska where he spent part of the summer studying the distribution

of mosses growing within the Arctic Circle. He will present a paper on chromosome studies of mosses at the Paris meeting.

Education

Officials of the Methodist Church are planning a fund campaign to raise the $1,000,000 needed to build a new liberal arts college in **Alaska.**

Beginning in February, the **American Chemical Society's** Philadelphia Section will present two continuation courses, "Petrochemicals" and "Recent Advances in Electrochemistry," at the Philadelphia College of Pharmacy and Science. For further information, address Dr. E. R. Nixon, Harrison Laboratory of Chemistry, University of Pennsylvania, Philadelphia 4, Pa.

The **California Institute of Technology** has announced that construction is expected to begin next year on a new chemical biology laboratory. Property and funds for the building and for research were bequeathed to the Institute by Norman W. Church.

The second annual **Christmas Lectures of the Washington Philosophical Society** were presented by Richard M. Sutton, professor of physics at Haverford College. Some 350 to 400 young people attended each of two lectures.

The **1954 Frontiers in Chemistry Lecture Series** will be devoted to "Chemistry of the Solid State" and "Chemistry of Natural Products," and will be given at Western Reserve University from Feb. 26 through Apr. 30. Ten outstanding scientists will participate.

In the new seven-story Fritz Engineering Laboratory under construction at **Lehigh University,** a principle feature will be a testing machine having a capacity of 5,000,000 pounds, and capable of testing actual structural members rather than small replicas.

Television has stimulated public interest in the weather to such an extent that, beginning with the spring semester, **New York University** will offer an evening course for adult students in "Forcasting the Weather." In addition, the university has announced the removal of technical prerequisites for students who want a course in general meteorology but do not intend to specialize in the field.

To provide an educational visual aid to show the earth floating in space as it would look to an observer approximately 5000 miles away, a **revolving globe** nearly 28 ft in diameter is being constructed on the campus of the Babson Institute of Business Administration, Wellesley, Mass.

Through funds provided by the National Heart Institute of the National Institutes of Health, Public Health Service, an entire floor in the recently completed Lyon Laboratory Building at the **University of Minnesota Medical School** has been especially designed for studies in the field of quantitative histo- and cytochemistry under the direction of David Glick, professor of physiological chemistry. The facilities include laboratories for quantitative microchemical analysis of histologically defined samples, optical, x-ray absorption, and histology laboratories, and constant temperature instrument, cold, and animal rooms. Research and training programs will be conducted at both the pre- and postdoctoral levels.

The U.S. Air Force has leased to the **University of the South** a tract of land and a dwelling on the recently formed Wood Reservoir at the Arnold Engineering Development Center, Tullahoma, Tenn. The university's Department of Biology will establish a biological station on this site. Graduate work in hydrobiology and limnology will be offered under the direction of Professor H. Malcolm Owen, Assistant Professor Harry C. Yeatman, and Assistant Professor Edmund Berkeley.

At a recent dedication of the Dyer Observatory of **Vanderbilt University** a new type of reflecting telescope developed by James G. Baker of Harvard Observatory was shown. The instrument, called a Baker reflector-corrector, is similar to the wide-angle Schmidt telescope. Photographs taken with a Schmidt, however, have to be on special curved plates. With the new telescope, the optics are so arranged that photographs can be taken on flat plates. The Vanderbilt telescope can also be converted into a conventional instrument by swinging the reflector-corrector lens out of the way and substituting another. Carl K. Seyfert is director of the new observatory, which is located about ten miles south of Nashville. The observatory was made possible through contributions of time, materials, and money by 80 citizens and organizations of Nashville and vicinity. Special grants for the project, totalling $250,000, were received from the Research Corporation and the National Science Foundation.

Grants, Fellowships, and Awards

The **College of Forestry of the State University of New York** expects to offer 25 fellowships for 1954–55. Stipends vary from $900 to $1350 for a nine- or a twelve-month period. Fellows are excused from paying tuition and laboratory fees of about $350 per year. They are required to assist in teaching and research work for a maximum of 15 hrs per week.

Specially qualified applicants will be considered for other fellowships sponsored by industry, research foundations, and government agencies which the college awards for work on assigned research projects. Recipients are required to devote full time, except for course work, to these projects. Conditions of awards vary with sponsorship. These fellowships carry stipends of from $1500 to $2000. Holders are also excused from paying tuition and laboratory fees.

There is still another group of fellowships that are awarded in relation to the college's general program of research. *Applications should be submitted by Mar. 15.* For detailed information address the Chair-

man, Committee on Graduate Study, State University College of Forestry, Syracuse 10, N.Y.

The **Maria Moors Cabot Foundation** is offering **research assistantships** for graduate study and research in forest genetics. The assistantships will enable students to matriculate in the Harvard Graduate School of Arts and Sciences, and pursue half-time study toward a doctor's degree in biology, while engaged in research. Two assistantships with stipends of $2400 each are available for use in defraying the student's tuition and living costs while in residence at the University. The assistantships will be granted for a single calendar year, beginning July 1. Upon satisfactory completion of the first year of residence, the student will ordinarily be eligible for an equivalent appointment for an additional year.

Graduates of American colleges and scientific schools of good standing, who have completed the normal four-year program leading to a bachelor's degree in one of the plant sciences, and who present evidence of ability to pursue graduate study, will be eligible. Application blanks may be obtained from the Cabot Foundation, Petersham, Mass. *Applications must be filed by Mar. 1.*

Candidates for the $2500 **Merck Graduate Fellowship in Analytical Chemistry** are now being sought for 1954. The fellowship is sponsored each year by Merck & Co., Inc., Rahway, N.J., and administered by the American Chemical Society. The applicant believed capable of contributing most to the advancement of the theory and practice of analytical chemistry during his course of study and in the future will receive the award, contingent upon his acceptance by the institution and professor selected for the proposed study program. The institution selected must be one whose undergraduate course of instruction in chemistry is approved by the American Chemical Society. In Canada, the institution must also be approved by the Chemical Institute of Canada. A student will be eligible to have the fellowship renewed twice. Application blanks may be obtained from the American Chemical Society, 1155 Sixteenth St., NW, Washington 6, D.C. They should be completed and returned to the Merck Fellowship Committee, at the same address, along with letters of recommendation and transcripts of credits. *Deadline date for receipt of all material is Feb. 1.*

Applications for 1954–55 fellowship and grant-in-aid awards of the **National Council to Combat Blindness** will be considered by the organization's Scientific Advisory Committee at its fifth annual meeting to be held this spring. *Completed applications should be received by the Council no later than Apr. 15.* For application forms, address the Secretary, National Council to Combat Blindness (at the Council's new address), 30 W. 59 St., New York 19.

The **National Safety Council Award of Honor has been presented to the U.S. Atomic Energy Commission** in recognition of the safety record achieved in the atomic energy program during 1952. The award was presented by Ned H. Dearborn, president of the Council, to AEC Chairman Lewis L. Strauss.

During 1952, the frequency of occupational injuries per million man-hours worked in all categories of the program decreased 50 percent below the average for the previous three years, and the severity of injuries was reduced 33 percent; the award was based on this record of improvement.

The injury rate in the atomic energy program has declined steadily since the end of 1949. The frequency of injuries from accidents in the program dropped from 5.40 per million man-hours in 1949 to 2.51 in 1952; the injury rate for American industry decreased from 10.14 to 8.40 per million man-hours during the same period. Construction workers in the atomic energy program incurred 2.71 injuries per million man-hours during 1952—a 61-percent decrease below the 1949–1951 average; this improvement occurred despite an 80-percent increase in AEC construction man-hours in 1952 over 1951.

The **National Science Foundation** will award individual grants to defray partial travel expenses for a limited number of American ornithologists who will attend the **11th International Congress of Ornithology** to be held in Basel, Switzerland, May 29 to June 6. Application blanks may be obtained from the National Science Foundation, Washington 25, D.C. *Completed forms must be submitted by Mar. 1.*

The Nature Conservancy, 607 G St., SE, Washington 3, D.C., is offering a grant of $500 for 1954–55 to any candidate for an advanced degree in a field that allows him to choose as the principal subject of his thesis some aspect of the interrelations between increasing human populations and nature conservation. Applicants should request detailed information from the Conservancy. *Completed forms and a study outline must be submitted before Apr. 15.* The award is made possible through the generosity of Conrad Chapman of Boston, a member of the Nature Conservancy's Board of Governors.

University faculty members are invited to apply for places in the **Research Participation Program** carried out by the **Oak Ridge National Laboratory** and the **Oak Ridge Institute of Nuclear Studies.** Through this program, faculty members may carry out research in Oak Ridge, principally at the National Laboratory, for periods of three months to one year. In general, participation should be for six months or more to be of maximum value both to the faculty member and the laboratory concerned.

Compensation for a person on leave for research participation at Oak Ridge is equivalent to his university salary. Application should be made approximately six months prior to actual participation. Application forms and additional information may be obtained from the University Relations Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tenn.

Eleven of the South's major pulp and paper mills have announced the establishment of the **Reuben B. Robertson professorship in pulp and paper technology** in the School of Forestry at North Carolina State College. The industrial firms have agreed to contribute a total of $5000 a year to the professorship. They also plan other assistance to North Carolina State College's training and research program in pulp and paper technology.

The professorship was set up in honor of Reuben B. Robertson, chairman of the board of the Champion Paper and Fibre Company, Canton. In a brochure announcing the establishment of the new chair, Mr. Robertson was cited for his work in building the pulp and paper industry, now the nation's sixth largest industry. He also was cited for his achievements in the fields of industrial and public relations, in forest conservation, in systematic safety promotion and accident prevention, and for "his life of multiple interests and services," Mr. Robertson joined the staff of the Champion Paper and Fibre Company in 1907 and has been working for the company since that date.

With the distinguished professorship, the School of Forestry will be able to advance its new pulp and paper technology curriculum, the only undergraduate training program of its type in the 14 southern states. The school has been designated as a regional training center for pulp and paper technology by the Southern Regional Education Board in Atlanta, Ga.

A graduate scholarship for **soil moisture research** has been established in the Cornell School of Civil Engineering by Armco Drainage and Metal Products, Inc., of Middletown, Ohio. The stipend will be $2500 a year for a one- or two-year program, beginning with the spring term in February. It will include tuition and funds for field tests. The recipient will also have the use of the school's equipment for measuring soil moisture and density by neutron and gamma ray scattering principles. Information may be obtained from Prof. D. J. Belcher, Department of Transportation, School of Civil Engineering, Cornell University.

The **Tau Beta Pi Fellowships** for graduate study in engineering during 1954–55 have been announced. Each fellowship is for $1200, and its value may be considerably enhanced by remission of most or all of the tuition fees. *Applications must be mailed by Feb. 28.* For additional information write to Paul H. Robbins, Director of Fellowships, 1121 15 St., NW, Washington, D.C.

Meetings and Elections

A new medical group which aims to improve and humanize medical care has been organized with the name **Academy of Psychosomatic Medicine.** Officers are: pres., William Kaufman, Bridgeport, Conn.; v. pres., B. B. Raginsky, Montreal, Canada; sec., Ethan Allan Brown, Boston, Mass.; treas., Alfred J. Cantor, Flushing, N.Y.

Members will be leading surgeons, rehabilitation experts, internists, anesthesiologists, ophthalmologists, gynecologists, obstetricians, psychiatrists, hospital administrators, pediatricians, geriatricians, dermatologists, allergists, and other medical specialists. The work of this organization will be carried out through clinical and laboratory research, medical meetings and forums, and by the creation of a new medical journal.

The **American Ornithologists' Union** has elected the following officers for 1953–54: pres., Alden H. Miller; 1st v. pres., Ludlow Griscom; 2nd v. pres., Ernst Mayr; sec., Harold Mayfield; treas., Charles G. Sibley.

The American Orthopsychiatric Association will hold its 31st annual meeting in New York City Mar. 11–13. Approximately 90 scientific papers will be presented by psychiatrists, psychologists, social workers, educators, sociologists, and anthropologists. One section will hold an all-day session on the subject of residential treatment centers for emotionally disturbed children. There will be 18 case workshops, one-and-a-half days of selected mental health film showings, demonstrations of psychodrama, and numerous technical and commercial exhibits.

The presidential session will be concerned with "Causes of Family Breakdown." Papers, symposia, and round tables which follow will be on various orthopsychiatric themes including psychotherapy, child development, psychosomatic disturbances and their treatment, mental health in the schools, and other related subjects. Inquiries about the program, reservations, exhibits, and other matters should be directed to Dr. Marion F. Langer, American Orthopsychiatric Association, 1790 Broadway, New York 19, N.Y.

The National Science Foundation, the Carnegie Institution of Washington, and the California Institute of Technology recently sponsored a **Conference on Radio Astronomy** at the Carnegie Institution. About 30 astronomers and radio engineers attended the three-day conference to discuss current research problems and techniques, including recent developments in antenna design and in the construction of large parabolic reflectors and other receiving equipment. The Conference was organized by the following committee:

J. L. Greenstein, chairman, Mount Wilson and Palomar Observatories
B. J. Bok, Harvard College Observatory
L. A. DuBridge, California Institute of Technology
J. Hagen, Naval Research Laboratory, Washington, D.C.
R. J. Seeger, National Science Foundation
M. Tuve, Carnegie Institution of Washington
J. B. Wiesner, Massachusetts Institute of Technology.

Officers of the **Association of American Medical Colleges** for 1953–54 are: pres., Stanley Dorst, University of Cincinnati College of Medicine; pres.-elect, Vernon Lippard, Yale University School of Medicine; v. pres.,

William Middleton, University of Wisconsin Medical School; treas., John B. Youmans, Vanderbilt University School of Medicine; sec., Dean F. Smiley.

The **Association for Research in Nervous and Mental Diseases** has elected the following officers for 1954: pres., Rustin McIntosh, Columbia University, New York; 1st v. pres., Walter Klingman, University of Virginia; 2nd v. pres., William Langford, Columbia University; sec.-treas., Clarence Hare, Columbia University; ass't. sec., Rollo J. Masselink, Columbia University.

The World Federation for Mental Health has announced the **5th International Congress on Mental Health** to be held in Toronto, Aug. 14–21. The theme of the Congress is Mental Health in Public Affairs. Leaders in the mental health field will present papers of general interest at the plenary sessions. There will be technical sessions, consisting of scientific papers and round-table discussions, supplemented by smaller discussion groups.

The International Association for Child Psychiatry will hold an International Institute on Child Psychiatry on Aug. 13–14 in conjunction with the Congress. The subject will be Emotional Problems of Children under Six. Members of the Institute will discuss prepared clinical case studies and research reports related to the treatment of young children. It is hoped that some broad principles of child psychiatry will emerge which will be useful to workers in this field.

It is anticipated that many nationalities and professional groups will be represented at the Congress. The National Association for Mental Health would like to insure the attendance of a large group from the United States. For further information communicate with Helen Speyer, National Association for Mental Health, 1790 Broadway, New York 19, N.Y.

An honorary food technology society, **Phi Tau Sigma,** was founded on Dec. 1 by a group at the University of Massachusetts. The organization will be incorporated under the statutes of the Commonwealth of Massachusetts, with headquarters remaining at the University. It is intended that charters will be granted for the establishment of local chapters in other areas in accordance with the procedures promulgated in the constitution of the Society.

The purposes of the organization are to "encourage the application of fundamental science to food technology, to honor and recognize achievements in the field and to promote fellowship, thereby stimulating the free exchange of knowledge in food technology." These goals will be carried out through an active program of lectures, discussion meetings, and social gatherings by chapters as well as by the election to membership of qualified food technologists and advanced students of food technology.

Elected to the board of directors of the Society were: Milton P. Baldauf, Robert V. Decoreau, Enio Feliciotti, Gideon E. Livingston, William D. Powrie, Maynard A. Steinberg, and Donald E. Westcott. Gideon E. Livingston, associate research professor of food technology, was elected chairman of the board of directors and president of the Society for 1954. William D. Powrie, research instructor in food technology, was elected vice-president. Enio Feliciotti, instructor in food technology, is secretary-treasurer and Mr. Donald E. Westcott, instructor in food technology, is appointed executive secretary. In recognition of his numerous contributions to food technology, Carl R. Fellers, head of the Department of Food Technology at the University of Massachusetts, was elected honorary president.

Miscellaneous

New journals received: *Actas de la Clínica Yódice* (In Spanish.) Núm. 1, Año 1, July–Aug. 1953. Director, José Raúl Vásquez. Clínica Yódice, Canning 2904, 5° C, Buenos Aires, Argentina. Bi-monthly. $5.00 per year. . . . *Boletín Indigenista Venezolano* (In Spanish.) Vol. 1, No. 1, Jan.–March 1953. Comisión Indigenista, Ministerio de Justicia, Apartado 2.059, Caracas, Venezuela. Quarterly. . . . *Bulletin of the Chinese Association for the Advancement of Science* (In English.) Vol. 1, No. 1, Aug. 1953. Editor, Tsao Wen-yen. CAAS, 59 Kuan Chien Road, Taipei, Taiwan, China. $6.00 per year; 70¢ per issue. Monthly. . . . *Bulletin of the Institute of Nuclear Sciences "Boris Kidrich"* (In English.) Vol. 3, Aug. 1953. Formerly published as **Recueil de Travaux de l'Institut de Recherches sur la Structure de la Matière.** P. O. Box 522, Belgrade, Yugoslavia. . . . *Deep-Sea Research.* Vol. 1, No. 1, Oct. 1953. Pergamon Press, 242 Marylebone Rd., London, N.W.1., England. Quarterly. £4 10s. a volume incl. postage. . . . *General Motors Engineering Journal.* Vol. 1, No. 3, Nov.–Dec. 1953. Editor, Arvid F. Jouppi. General Motors Corp., 3044 W. Grand Blvd., Detroit 2, Mich. Bi-monthly. . . . *Journal of the Operations Research Society of America.* Vol. 1, No. 5, Nov. 1953. Editor, Thornton Page. Operations Research Society of America, Mount Royal & Guilford Aves., Baltimore 2, Md. Quarterly. $1.50 per issue; $6.00 per year ($6.60 outside U.S. and Canada). . . . *Oceanus.* Vol. 1, No. 1, Winter 1952. Editor, Jan Hahn. Woods Hole Oceanographic Institution, Woods Hole, Mass. Semiannually. Free. . . . *La Revue Libérale* (In French.) (Science, philosophy, economics.) No. 4, Oct.–Dec. 1953. Director, M. Rouillard. 1, rue François Ier, Paris-8e, France. Quarterly. 700 frs. a year. . . . *Wakayama Medical Reports* (In English.) Vol. 1, No. 1, May 1953. Founded by Yashiro Kotake. Wakayama Medical College, Japan. . . . *The Yokohama Mathematical Journal* (In English.) Vol. 1, No. 1, May 1953. Editor, T. Takasu, Yokohama Municipal University, Kanazawa-Hakkei, Yokohama, Japan. Semiannually.

Correction: The note on Roger Adams in "Scientists in the News" of Jan. 8th should have stated that Dr. Adams is to receive the Perkin Medal of the American Section of the Society of Chemical Industry, not the medal of the American Section of the Société de Chimie Industrielle. *Science* regrets the error.