News and Notes

Soil Microbiology

The first Soil Microbiology Conference in the United States, sponsored jointly by the American Society of Agronomy, the Soil Science Society of America, and Purdue University, was held in West Lafayette, Ind., 21–24 June. A keen interest in soil microbiology was shown by more than 200 registrants who represented federal, state, and private research agencies, educational institutions, and commercial interests.

The 2½-day sessions presented 14 invitational papers dealing with the role of soil microorganisms in organic matter and nitrogen transformations in soil; with microbial contributions to the physical properties of soils, to the mineral nutrition of plants, and to plant disease control; and with the frontiers still remaining for soil microbiological research. There were two evening sessions, one of which was devoted to informal discussions of some current problems in soil microbiology, and the other to a dinner meeting at which Robert M. Salter was the guest speaker and discussed "Soil microbiology in America."

The organizing committee believes that the conference successfully accomplished its objectives, particularly in defining the place for soil microbiology in soil science and in emphasizing the desirability of teamwork among soil microbiologists and scientists in such other fields as soil chemistry, soil physics, plant physiology, phytopathology, and fertilizer usage.

LEWIS W. ERDMAN

U.S. Department of Agriculture,
Beltsville, Maryland

Friends of the Pleistocene (Midwest)

On 29–30 May the fifth annual field conference of the midwest group of the Friends of the Pleistocene was held in central Minnesota. The trip was directed by H. E. Wright, Jr., of the University of Minnesota, assisted by A. F. Schneider and H. F. Arneman (Soils), and was based largely on work sponsored by the Minnesota Geological Survey, G. M. Schwartz, director. The conference was attended by about 75 geologists, soils scientists, and others from Ohio, Michigan, Illinois, Wisconsin, Iowa, Minnesota, North Dakota, Nebraska, and Colorado. A day and a half were spent in the field, and an evening meeting was arranged at Brainerd for review of the problems and for discussion of a number of controversial questions.

The principal objective of the field conference was the examination of the relationships among the several glacial drifts of Cary age. The drifts involved are readily recognized by differences in color, pebble lithology, and carbonate content, and the forms of the several ice lobes are delineated by patterns of drift distribution, drumlins, and moraines. Sequence of glaciation among the Cary ice lobes is shown by stratigraphic relationships and by drainage features.

Stops were made at various exposures along the St. Croix moraine from Minneapolis northwest for 125 mi. This moraine principally represents the terminus of ice lobes that brought brown and red till from northeastern Minnesota and the Lake Superior basin, respectively, but within it there is buff (gray where unoxidized) calcareous till with a source to the northwest in Manitoba, represented to the west of the moraine by the Wadena drumlin field. Several exposures were visited where buff till or sand is interbedded with red till or sand, in layers ¼ to 2 in thick. These are interpreted as representing deposition by or from two fluctuating ice lobes existing simultaneously in close proximity. The postulated mechanism of ice-front deposition was not accepted by all participants in the conference. However, difficulties are encountered as well by hypotheses involving only a single ice lobe, such as a mechanism whereby pure buff drift, derived far up-glacier, would be deposited from an englacial position alternately with pure red drift that had been picked up locally from the substratum.

In addition to the interbedding of different drifts visible in single exposures, there are stratigraphic relationships extending over an area 50 mi across that indicate a broad overlap zone marked by major fluctuations in the positions of the several Cary ice lobes. In general, though, it appears that the major sequence was as follows. Much of the evidence for this sequence was examined during the field conference. (i) As the ice from Manitoba retreated, ice lobes from the Lake Superior basin and from northeast Minnesota advanced side-by-side, with some mixing, as far as the center of the state, bringing red and brown drifts, respectively. These lobes overrode or truncated the Wadena drumlin field and built the prominent St. Croix moraine at their terminus, having formed their own drumlin fields behind to the east of the moraine. Continued activity of western ice is shown by the interbedding of buff drift with both the red and the brown drifts within the St. Croix moraine. (ii) Gradual but differential retreat of the eastern ice lobes permitted meltwater to form a striking series of north-south frontal drainageways within the St. Croix moraine, until finally the course of the Mississippi River was reached.

The complexity of the Cary history is epitomized by an exposure in the St. Rosa esker, within the St. Croix moraine. The esker is made of calcareous gravel and sand related to the buff drift, is overlain by a generally uniform blanket of interbedded buff and red tills a few feet thick, and then is capped by as much as 20 ft of buff till. The esker seems to have been overridden twice, to account for the formation of the two covers. At one place the esker gravel and the overlying till blanket were intensively deformed by ice push during the second overriding, producing vertical isoclinal folds 15 ft across. The main esker form, however, seems not to have been greatly modified by this action.

An objective of the second day of the field conference was an examination of exposures of red clayey till that is correlated with the Valders drift of northeastern Wisconsin. At the exposures examined, the Valders till, near the western limit of its development, is interbedded with buff calcareous sand and silt that shows Mankato drift from the west. As with the Cary drifts, these exposures are interpreted as representing simultaneous existence of eastern and western ice lobes and imply the correlation of the Valders with Mankato.

One general impression seems to have been successfully imparted during the course of the conference—the complexity of the Cary glaciation in central Minnesota. Many relationships will certainly be clarified by further fieldwork, but the complexity here displayed is in part a result of the relative ease of differentiation of the drifts of the several ice lobes involved. Perhaps in other areas such complexities are simply not even suggested because drift lithologies of adjacent ice lobes are not sufficiently diverse. The hypothetical mechanisms for the apparent intimate interbedding of drifts might be confirmed by examination of the deposits of modern ice sheets and piedmont glaciers composed of separate ice lobes or tongues. Current glaciologic investigations of Greenland and other ice sheets and of piedmont glaciers will give an increasing number of glacial geologists the opportunity to combine observations on the stratigraphy of Pleistocene drifts with observations on active drift deposition by modern glaciers and may indicate the correct hypothesis for the genesis of the interbedded drifts under consideration during the field trip.

H. E. WRIGHT, JR.

University of Minnesota

Science News

A **"Statement of Views on a Balanced Security Program"** was prepared recently by the Los Alamos branch of the Federation of American Scientists and submitted to Lewis L. Strauss of the Atomic Energy Commission. Excerpts from the statement follow:

(i) . . . It is only secrecy, the negative contribution, which is seriously considered in our security program. We must recognize the need in any balanced view of the problem for considering positive security. Potential contributors to positive security must not be eliminated except for the most compelling reasons of negative security. . . .

(ii) We believe that the general basis for clearance should be: "Clear this man *unless* you have after careful investigation determined that there exists reasonable doubt as to his ability to meet the necessary requirements." Such a positive approach is in the highest democratic tradition. . . .

(iii) . . . An individual merits the withholding of security clearance only when he is demonstrably disloyal to our Constitution, clearly indiscreet in his protection of classified matters, dishonest, or susceptible to coercion to treason.

(iv) . . . guilt by association is not a sound guiding principle in the security system of a brave nation. When an individual associates with a large number of reputedly disloyal people, it may be possible to advance the charge of flagrant indiscretion or even disloyalty, but when a few such associations can outweigh all other evidence of discretion and loyalty, the security system is in danger of becoming monstrous.

(v) . . . each man may bring to any discussion not only those ideas and conclusions which fall within his technical competence, but also such moral considerations as he considers pertinent, each man according to his own conscience.

(vi) . . . free citizens, including advisors to government, have the unquestioned right of dissent, including the right of dissent after an administrative decision has been taken.

Fluoridation of drinking water started in the 1000th town, Osawatomie, Kan., on 12 Aug. Fluoridated water and its tooth benefits are now available to some 18 million persons, according to a recent estimate by the American Dental Association.

In the 24 July issue of the *Journal of the American Medical Association,* G. W. Anderson and J. L. Rondeau discuss statistical findings of an epidemiologic **survey of 2669 cases of poliomyelitis** during the 1946 outbreak in Minnesota. These observers found that persons with bulbar poliomyelitis, as evinced by such symptoms as difficulty in swallowing and breathing, were more likely to have had their tonsils removed than those with spinal or nonparalytic forms of the disease. The accumulated data showed that bulbar involvement occurred in more than a third of the patients whose tonsils were not present, whereas less than a tenth of the patients who had not had tonsillectomies showed bulbar response. Absence of the tonsils increased the risk of bulbar involvement about fourfold. The authors felt that the higher proportion of bulbar poliomyelitis seen in older persons is due primarily to the absence of the tonsils rather than to age *per se.* They found no evidence of the effect of tonsillectomy in altering susceptibility to clinically recognizable poliomyelitis, and their study was concerned only with the likelihood of a bulbar involvement if clinically recognizable poliomyelitis developed. —E. M. L.

Arnold H. Sparrow and Eric Christensen, biologists at the Atomic Energy Commission's Brookhaven National Laboratory, reported in *Nucleonics* for August that the normal **storage life of potatoes** can be prolonged by exposure to nuclear radiation.

At the recent meetings of the American Branch of the International League Against Epilepsy and the American Academy of Neurology at Washington, D.C., Roscoe L. Barrow, dean of the Cincinnati Law School, and Howard D. Fabing, epileptologist, reported on a survey of **laws dealing with epilepsy.** They revealed that 19 states prohibit marriage of epileptics, that 15 states are required by law to place epileptics in institutions which also house persons with mental retardation and psychoses, that 18 states insist upon the

sterilization of those afflicted, and that 47 states, including New York, deny epileptics driving licenses even when they are under total medical control.

The participants in the meeting took the unequivocal stand that "epilepsy should be no bar to marriage or the pursuit of normal living." Edward D. Schwade disclosed that in Wisconsin—the only state in which epileptics are regularly permitted to drive, upon approval of a special Commission—there have been no accidents that can be ascribed to a seizure.

In a paper on epilepsy and accident rates, Dr. Sands, executive director of the Epilepsy Association of New York, pointed out that the great majority of accidents occurring to persons with epilepsy do not occur during or because of seizures, and are of the kind that can happen to anybody.

The American Council of Learned Societies reports that the Soviets are producing **dictionaries in 80 languages.** An ACLS statement adds: "All 80 cost less than one round-trip bomber. We are making dictionaries too—three of them so far, and we'll start the fourth when we can find the money for it."

An editorial in *Chemical and Engineering News* of 2 Aug. deplores Defense Department reticence on the subject of **biological warfare,** saying that it "does not confuse any potential enemy" but does hamper the development of sound Civil Defense plans. The Army Chemical Corps since Nov. 1942 has conducted research on both defensive and offensive aspects of biological warfare. With federal budget figures and construction contracts available to anyone interested, a fair idea of the extent of U.S. activities in the field may be obtained. Failure of the Defense Department to set the facts straight, however, has left the American public uninformed and has led to exaggerated claims and wild flights of fancy in popular articles.

The **first transoceanic statistical information** to be radioed directly from one punched card to another was sent recently by the U.S. Air Force from Port Lyautey, near Casablanca, Morocco, across 3000 mi to Washington, D.C. During a 1-wk experimental period, information was sent between these two points, in both directions, at the rate of approximately 1000 characters per minute by an IBM data transceiver.

The **altitude record** for single-stage rockets was set on 24 May when the Naval Research Laboratory's Viking 11 reached a height of 158 mi above the White Sands Proving Grounds at Las Cruces, N. Mex. The previous record was set on 6 May, when the Viking 10 tied the old single-stage altitude record of 136 mi.

The Viking 11, measuring 45 ft and weighing 7½ tons, topped that mark by 22 mi; its maximum speed was 4300 mi/hr. The rocket's warhead—carrying almost 1000 lbs of electronic instruments to relay and record information about the outer atmosphere—was recovered intact 24 mi northwest of the launching site. The warhead is blasted away from the body of the rocket at optimum altitude and then falls free. Its bulky design serves as a brake in the lower atmosphere. Most of the information obtained from the rocket was transmitted to the ground during the flight by means of a radio telemetering system designed by NRL.

Archeologists have discovered the remains of an entire **Arctic village,** last occupied more than 1000 yr ago, on the Melville Peninsula in Canada's Northwest Territories. It is the largest site yet found in the eastern Arctic. Test excavations already have revealed the presence of more than 100 houses, in addition to graves, implements, and other finds, that identify the site as belonging exclusively to the Dorset cultural era. The finds include organic remnants that contain abundant carbon, thus making possible a carbon-14 dating. The excavations are being carried out by a joint University of Pennsylvania–National Museum of Denmark team headed by Jorgen Meldgaard, assisted by Richard Emerick of the university museum.

Studies are expected to shed new light upon this little-known era and its relationship to other early Arctic cultures. The first identification of the Dorset culture as a separate and distinct culture, older than the whale-hunting Thule Eskimos of the eastern Arctic, was made in 1925 by Diamond Jenness of the Canadian National Museum. Since that time artifacts of Dorset origin have been found in the vast area from Newfoundland to northern Greenland, but they have nearly always occurred in deposits containing relics of other cultures. This has made it difficult to determine whether the Dorset culture was contemporaneous with other Arctic cultures and the extent to which it influenced or was influenced by other cultural patterns.

A yardstick to measure the **availability and volume of mental health clinic services** is an apt description of the new reporting procedure set up by the National Institute of Mental Health in close cooperation with the mental health authorities of the states. Initiated on a nationwide basis on 1 July, it marks the first comprehensive attempt to use uniform statistical reporting to gather data concerning psychiatric outpatient services. Briefly, the plan calls for each state's mental health agency to distribute a reporting form to clinics. After completion by the clinics, the forms will be returned through the state agencies to the Public Health Service Regional Offices and then to NIMH's Biometrics Branch, where the data will be tabulated and analyzed and summary reports published. The project, which was 2 yr in the planning and preoperational stage, is directed by Morton Kramer, chief of NIMH's Biometrics Branch, assisted by Anita Bahn, chief, Outpatient Reports and Records Unit.

The U.S. Atomic Energy Commission has revised its **radioisotope distribution regulations** to cover radioisotopes produced in any publicly owned or privately owned nuclear reactor located within the United States, its territories, or possessions. The revised regu-

lations subject radioisotopes produced in publicly or privately owned reactors to the same radiological safety controls as those produced in or distributed by AEC facilities.

A **new comet** has been found in the familiar constellation of Ursa Minor by Walter Baade of Mount Wilson and Palomar Observatories. It is of 15th magnitude, too faint to be seen without a very large telescope.

Albert E. Caswell, professor emeritus and former head of the department of physics at the University of Oregon, died on 18 June in Eugene, Ore., at the age of 70. He was born in Winnipeg, Manitoba, and received his doctor's degree from Stanford University in 1911. After 2 yr at Purdue University he went to the University of Oregon. He was appointed chairman of the department in 1934 and served in that capacity until 1949. During World War II he was a member of the staff of the Radiation Laboratory at MIT. Prof. Caswell was the author of a widely used textbook in general physics.

Scientists in the News

Alfred B. Babcock, Jr., one-time assistant branch chief of the New York Operations Office, U.S. Atomic Energy Commission, has been named chief project engineer of the Borden Co.'s chemical division.

Richard H. Baker, former electronic computing and control systems consultant, has joined the staff of Stanford Research Institute as a systems engineer. He will work in the recently expanded electronic data processing unit—a section of S.R.I.'s division of industrial economics research.

Harrison Brown, professor of geochemistry at the California Institute of Technology, is leaving this month on a 6-mo trip to participate first in the meeting of the International Geophysical Union, then to spend about 6 wk visiting geochemical laboratories in Switzerland, France, Belgium, and England, and finally to conduct a 3-mo study of mineral resources in India. This survey, sponsored by the Rockefeller Foundation, will be made with the cooperation of the Indian government.

Dana L. Farnsworth, medical director at the Massachusetts Institute of Technology, has been made Henry K. Oliver professor of hygiene, to direct all medical care in Harvard University, effective 1 Sept. As M.I.T.'s first full-time medical director, Dr. Farnsworth established a student insurance plan and expanded the medical, psychiatric, dental, x-ray, and occupational medicine services.

Dr. Farnsworth succeeds **Arlie Vernon Bock,** who has been the Oliver professor since 1935. At Harvard's commencement exercises in June Dr. Bock received the honorary degree of doctor of science with the citation: "A grateful patient honors her physician of three decades, whose human sympathy has been devoted to both the sick and the well."

Saul Krugman has been appointed associate professor of pediatrics at New York University–Bellevue Medical Center's College of Medicine. He is currently engaged in work on infectious diseases with particular emphasis on German measles.

Edwin M. Lerner, II, previously pathologist at the Biological Laboratory, Camp Detrick, Frederick, Md., joined the staff of the Laboratory of Pathology and Histochemistry, National Institutes of Health, Bethesda, Md., on 1 Aug.

C. Gordon Little was made assistant director of the Geophysical Institute of the University of Alaska on 1 July.

For his 25 yr of distinguished service to the University of Minnesota, **Irvine McQuarrie,** head of the department of pediatrics, will be honored at a pediatrics grand reunion 23–25 Sept. at the university. Colleagues and students of Dr. McQuarrie have planned the event in conjunction with the annual Northwestern Pediatric Society meeting. Lectures will be given at the meeting by 22 academic leaders in pediatrics, most of whom received their training under Dr. McQuarrie.

As an additional tribute, a McQuarrie Pediatrics Fund has been established with a goal of $50,000. The annual income will be used for such purposes as to support a lectureship in pediatrics, to provide travel funds for pediatrics staff members, or to provide fellowships in unusual circumstances.

Dr. McQuarrie, a graduate of the University of Utah who received his Ph.D. degree from the University of California and his M.D. degree from The Johns Hopkins University, joined the University of Minnesota staff in 1929. Before that he had served on staffs of the University of California, Henry Ford Hospital, Yale University, and the University of Rochester. In addition to his duties at the university during the past 25 yr, he was visiting professor of pediatrics at Peking Union Medical College in China and served on the China Medical Board of the Rockefeller Foundation. Lecture assignments have taken him to many parts of the world.

A. H. Moseman, crop research director for the U.S. Department of Agriculture, was the principal speaker on 18 Aug. at the annual visiting day of the Rice Branch Experiment Station, Stuttgart, Ark.

Howard Potter has been named acting dean of the State University of New York College of Medicine in Brooklyn. Dr. Potter, who is professor and chairman of the college's department of psychiatry and director of psychiatric services at Kings County Hospital, will assume his new duties on 1 Sept. This appointment will permit Jean A. Curran, dean of the college for 17 yr, to assume his new post as associate executive dean for medical education of the State University.

Meetings

The tentative program has been announced for the **5th Alaska Science Conference** of the AAAS Alaska Division, which will take place in Anchorage, 7–10 Sept. There will be groups of papers on agriculture and forestry, engineering, biological sciences, medicine and public health, social sciences, and physical sciences. There will also be several symposiums on such subjects as "Resource planning in northern Alaska."

Several hundred foresters, industry representatives, civil servants, and private citizens interested in conservation of the nation's natural resources will convene 6–9 Sept. in Portland, Ore., for the 79th annual meeting of the **American Forestry Association.**

More than 500 American and Canadian physiologists will attend the 6th annual fall meeting of the **American Physiological Society,** 8–10 Sept., at the University of Wisconsin, where 272 papers will be presented. W. B. Youmans, chairman of the Wisconsin department of physiology, is chairman of the committee on local arrangements. Herbert S. Gasser, a Nobel prize winner and until recently director of the Rockefeller Institute for Medical Research, will chair one of the sessions. Another session chairman will be Carl J. Wiggers, editor of *Circulation Research* and formerly head of the department of physiology at Western Reserve University. Dr. Wiggers is known as the "Dean of Physiology."

Three other groups of physiologists will meet at the university on the 2 days prior to the APS gathering. A refresher course in the physiology of respiration will be conducted by J .R. Comroe, professor of physiology and pharmacology at the University of Pennsylvania Graduate School of Medicine, and Herman Rahn, associate professor of physiology at the University of Rochester School of Medicine and Dentistry. Some 90 physicians are expected to participate.

Also, approximately 100 physiologists will attend a 2-day session to review a long-range survey of the physiological sciences sponsored by the American Physiological Society. The survey, begun 2 yr ago, is a comprehensive study of physiology as a profession.

While these two groups are on the campus, members of the Physiology Study Section, U.S. Public Health Service, will meet to consider applications for grants-in-aid for research projects.

The 8th annual meeting of the **American Society for the Study of Arteriosclerosis** is to be held in Chicago 31 Oct.–1 Nov. The full program and 63 abstracts of papers will appear in the October issue of *Circulation.*

This year the **American Society of Zoologists** will hold its annual meeting at the University of North Carolina 28–30 Dec. This is the first time in 19 yr that the society has not met in conjunction with either the AAAS or the American Institute of Biological Sciences.

Abstracts for papers should be sent to the secretary, Rudolf T. Kempton, Vassar College, Poughkeepsie, N.Y. Prior to 7 Sept., time will be saved by addressing mail to Dr. Kempton at the Marine Biological Laboratory, Woods Hole, Mass. All abstracts must be submitted *on or before 19 Sept. 1954.* If no abstract accompanies a title, or if title and abstract are received later than 19 Sept., a paper can be placed on the program only by vote of the society at Chapel Hill.

Professors of **chemistry and chemical engineering** from more than 30 leading American colleges and universities will be guests of the General Electric Co. in Schenectady, N.Y., at a special conference scheduled for 8–11 Sept. The purpose is to acquaint teachers of chemistry and chemical engineering with work under way in various G.E. departments.

The resurgence of the foreign chemical industry will be discussed at a meeting of the **Commercial Chemical Development Association** in Bedford, Pa., 7–8 Oct., under the chairmanship of Frank Waldo. Research carried on abroad is now resulting in numerous new products and processes and is bringing the foreign chemical industry back to its previous world-wide prominence. Six papers analyzing specific phases of international commercial development will be presented on the first day of the meeting. The second day will be devoted to a panel discussion of case studies.

Education

The Council on Dental Education of the American Dental Association has announced that the first series of **dental aptitude tests** for applicants to the 1955 freshman dental school classes will be given 1–2 Oct. College students interested in taking the tests during this series *must submit their applications to the association by 17 Sept.*

Astronomers and electrical engineers at the University of Pennsylvania have joined forces in a program to pioneer new **electronic methods of observing the stars.** To foster the development of new observational aids, the university has established a working partnership between its department of astronomy and its Moore School of Electrical Engineering.

The **first American textbook in written Hindi** is being prepared at Cornell by John Gumperz of the university's modern language division. The new book, *An Introduction to the Hindi Alphabet and Elementary Hindi Reader,* is intended as a companion volume to *Spoken Hindi,* prepared for the U.S. Armed Forces and published by Henry Holt and Co. After Dr. Gumperz completes the book, he will go to India for a year's research on the village dialects of Hindi and how they are being changed by city speech; he will work in India under a grant from the Ford Foundation's Board of Overseas Training and in cooperation with Cornell's anthropological field station.

Hindi, formerly Hindustani, will replace English

as the official language of India in 1962. Hindi was brought to India by Aryan invaders in the 7th and 8th centuries A.D. It or its dialects is now spoken by three-eighths of the population. Dravidian languages, derived from the speech of India's original inhabitants, are spoken only in the south.

Ground was broken for the new $1,350,000 building of the **Georgetown University School of Nursing** on 15 Aug. The building will be the first to be erected under the Greater Georgetown Fund, the university's 10-yr $14 million development program.

"Medical Issues in Legal Cases," a 15-wk course designed especially for physicians, will be offered this fall by the new Law-Medicine Center at Western Reserve University. Course material will concern personal injury cases involving legal rights.

Fourteen outstanding medical specialists will take part in a series of evening discussions on **medicine for the layman,** starting 7 Oct., at Columbia University.

A separate department of psychiatry has been organized at **Stanford School of Medicine,** San Francisco. George S. Johnson, professor of medicine since 1933, has been appointed executive head of the new department. Psychiatry had previously been included in the department of medicine.

Available Fellowships and Awards

The **American Cancer Society** has announced a number of clinical fellowships that offer graduates in medicine opportunities for postgraduate training emphasizing diagnosis and treatment of cancer. Since fellowships are awarded to institutions only upon application by deans, executive officers, or department heads, interested persons should consult the appropriate authority in the institution of their choice. Applications for 1955–56 *must be submitted prior to 15 Sept.* Further information may be obtained from the American Cancer Society. Professional Education Section, 47 Beaver St., New York 4.

The **Arthritis and Rheumatism Foundation** is offering the following research fellowships in the basic sciences related to arthritis:

Predoctoral fellowships, $1500 to $3000 per annum, depending on the family responsibilities of the fellow, tenable for 1 yr with prospect of renewal.

Postdoctoral fellowships, $4000 to $6000 per annum, depending on family responsibilities, tenable for 1 yr with prospect of renewal.

Senior fellowships for more experienced investigators, $6000 to $7500 per annum, are tenable for 5 yr.

The deadline for applications is 15 Oct. For information, address the Medical Director, The Arthritis and Rheumatism Foundation, 23 W. 45 St., New York 36.

The **John and Mary R. Markle Foundation,** 511 Fifth Ave., New York, announces that it will continue for the eighth year its program of 5-yr grants for Scholars in Medical Science. The purpose is to offer academic security and financial help to medical school faculty members at the start of their careers in academic medicine. Since the initiation of the program, in 1948, a total of $3,950,000 has been granted toward the support of 136 doctors in 59 medical schools. In 1954, 25 men were chosen, the largest number for any year.

The 5-yr grants are made at the rate of $6000 annually to the medical school where the Scholar will teach and conduct research. Each medical school is invited to nominate one candidate *on or before 1 Dec.* A publication outlining the plan will be sent on request.

To increase the number of well-trained teachers in the field of preventive medicine, the **National Foundation for Infantile Paralysis** is now offering a limited number of fellowships to physicians interested in study and research in the teaching of preventive medicine. The program of study may be undertaken at an approved school of public health or in a department of preventive medicine of an approved medical school. Fellowships will be awarded for one or more years, with stipends ranging from $4500 to $7000 a year, depending upon marital status and number of dependents.

The fellowships will be given only to graduate physicians in good health who are U.S. citizens or applicants for citizenship, who have completed at least 1 yr of internship in an approved hospital, and who have had not less than 2 yr of additional training and experience, including some teaching responsibility, in one of the specialties relating to preventive medicine. Each recipient must have the intention of teaching preventive medicine in the United States or its territories after completing his studies. Applications are accepted any time during the year. For details address the National Foundation for Infantile Paralysis, Division of Professional Education, 120 Broadway, New York 5.

Grants and Fellowships Awarded

An expanded program in radio astronomy will be launched by Australian scientists, aided by a $250,000 **Carnegie Corp. grant.** The award will be administered by the Commonwealth Scientific and Industrial Organization in Australia. The largest single appropriation to an Australian agency made by the Carnegie Corp. in 25 yr, it will provide part of the costs of constructing a giant parabolic reflector or receiving antenna, 250 ft in diameter and some 60 ft deep. About 3 yr will be needed to build and mount the reflector.

It has been designed by the Radiophysics Laboratory of the Commonwealth Scientific and Industrial Research Organization under the direction of E. G. Bowen, physicist, and his chief assistant, J. L. Pawsey, at the University of Sidney. Another reflector of

comparable size is now under construction at the University of Manchester in England from government and Nuffield Foundation funds.

The **Dental Branch, Biological Sciences Division of the Office of Naval Research,** has awarded the following research contracts to universities and nonprofit research institutions for periods of one to three years.

University of Alabama, Ward Pigman. Development of an artificial mouth for *in vitro* studies of dental caries.

Tufts College Dental School, Vincent F. Lisanti. Salivary enzymes related to oral disease.

Tufts College Medical School, Zareh Hadidian. Specific anti-hyaluronidases in serum.

University of Southern California, Lucien A. Bavetta. Amino acid deficiencies in bone and tooth metabolism.

The Jewish Hospital of Brooklyn, Albert E. Sobel. Mechanism of calcification and the caries problem.

University of Illinois, Isaac Schour and Maury Massler. Clinical and experimental investigation of pulpotomy in permanent teeth.

University of Southern California, Lucien A. Bavetta. Effects of tryptophane deficiency on the teeth and periodontium.

University of Minnesota, David F. Mitchell. Research in periodontal disease.

Georgetown University, Walter C. Hess. Proteins and mucopolysaccharides of teeth.

Melvin L. Winer, research pathologist at the Cancer Institute at Miami, has been awarded a research fellowship in cytology by the **Eugene L. Garey Foundation, Inc.,** of New York.

The American Medical Association's award for scientific exhibits, the **Hektoen gold medal,** went to the Veterans Administration during the recent AMA meeting in San Francisco. The exhibit depicted the scope of work being done at Houston, Tex., in connection with the diagnosis and surgical treatment of the diseased aorta and its main branches. The Houston project is under the direction of Michael E. DeBakey, professor of surgery at Baylor University and a consultant at the VA hospital. Assisting Dr. DeBakey are Oscar Creech, chief surgeon, and Denton A. Cooley, attending surgeon of the VA hospital staff. Two other VA exhibits that received honorable mention were "Diseases of the chest section" and the ophthalmology display "Multiple pattern of visual field examination."

The **Public Health Service** has announced approval of 1442 grants for assistance of medical research, aggregating $14,685,671. Less than one-third of the awards are for new projects. The remaining grants are for investigations already under way. As in the past, a maximum of 8 percent of a grant may be used to defray overhead expenses. A proposal to raise this allowance to 15 percent is still under consideration. Awards will be administered by the following components of the National Institutes of Health.

Arthritis and Metabolic Diseases: 66 new grants, $629,271; 146 continuations, $1,375,263.

Neurological Diseases and Blindness: 55 new, $471,178; 140 continuations, $1,327,089.

Cancer: 92 new, $981,074; 195 continuations, $2,182,395.

Dental research: 10 new, $73,292; 13 continuations, $113,873.

Microbiological: 77 new, $610,620; 64 continuations, $704,863.

Heart: 81 new, $912,938; 213 continuations, $2,283,370.

Mental Health: 25 new, $373,178; 42 continuations, $569,393.

For noncategorized research, administered by the NIH Division of Research Grants: 53 new, $516,522; 170 continuations, $1,561,352.

In the Laboratories

A new **a.c. network calculator** has been put into service by the Franklin Institute in cooperation with seven major power companies in Pennsylvania, New Jersey, and Delaware. The utilities will use this $400,000 computing device to help solve the many complex problems involved in maintaining and expanding their power systems.

American Rocket, a new company near Wyandotte, Mich., has been formed for consultation, research, development, production, and testing of rocket and jet devices. Present operations deal primarily with research aspects of both liquid and solid rocket propellants, but consideration will be given to control and guidance of rockets, as well as aeronautical, automotive, chemical, and industrial applications. Office, laboratories, pilot plant, test facility, and a machine shop are in operation. Alfred J. Zaehringer heads the new firm.

Three **amino acids tagged with carbon 14** are newly available from BIO-RAD Laboratories, Berkeley, Calif., in 1-mc standard packages. They are *dl*-norleucine 2-Cl^{14}, *dl*-norvaline 1-C^{14}, and *dl*-norvaline 2-C^{14}. The latter two compounds, having specific labels in two different positions, are expected to be particularly useful in studies involving the mechanisms of amino-acid metabolism.

Parke, Davis & Company has announced a new product, blastomycin, for use in the skin-test diagnosis of **blastomycosis,** also known as Gilchrist's disease, a fungus infection that may occur in any part of the body, but particularly attacks the skin, lungs, and bones, resulting in lesions. The new product is the sterile filtrate from a culture of *blastomyces dermatitidis* and is standardized according to the National Institutes of Health regulations.

Marking its fifth expansion in eight years, **Blue M Electric Co.,** manufacturers of electric ovens, furnaces, and related temperature control equipment for laboratories, pilot plants, and production, is erecting a 22,000^2 ft, 1-story building on 2 acres in Blue Island, Ill. Occupancy will begin 15 Sept.

Glyceric acid is now available as a reagent with a minimum assay of 95 percent, instead of the former 30 percent, from the Fisher Scientific Co., Pittsburgh.

Miscellaneous

A 346-page book containing 3512 **abstracts of articles and books on corrosion** is now available from the National Association of Corrosion Engineers, 1061 M & M Building, Houston 2. The articles, from more than 500 periodicals published all over the world in 1948–49, were abstracted by some 30 agencies that authorize NACE to use their abstracts. The two previous volumes covered literature published in 1945 and 1946–47.

The Scientific Motion Picture and Photographic Products Division of the Department of Commerce is sponsoring an **exhibit of American scientific instruments** in the main lobby of the Department of Commerce Building from 27 Sept. to 9 Oct. Members of the Scientific Apparatus Makers Association are cooperating with the Department of Commerce to make this first public showing possible.

A new periodical, **Journal of Nuclear Energy,** of interest to nuclear scientists and engineers, has been announced by the Pergamon Press, Ltd., London. It will be edited by J. V. Dunworth of the Atomic Research Establishment at Harwell, with the assistance of J. Gueron of the French Atomic Energy Commission, Paris, and G. Randers of the Joint Establishment for Nuclear Energy Research, Oslo, Norway. Contents of the Journal will be restricted mainly to papers describing original work, but review articles will be included from time to time. It is hoped to include book reviews and conference reports. Papers will be accepted in English, French, and German; each paper will be preceded by an abstract in English.

An exhibit of **radio-controlled pilotless aircraft,** sponsored by the George Getz Corp., has been installed at Chicago's Museum of Science and Industry. It consists of a variety of target planes developed for use in gunnery practice to simulate attacking enemy aircraft and guided missiles. Through radio control, these target "drones" can imitate high- and low-level bombing, evasive action, dive bombing, various aircraft flight patterns, and radar tracking. They may be controlled from the ground or from another aircraft, launched from the ground, a ship, or another aircraft, and this control may be switched from ground to air or vice versa.

Necrology

John Alexander, 63, author, medical lecturer, and chief of thoracic surgery at the University of Michigan, Ann Arbor, Mich., 16 July; **Saul B. Arenson,** 58, professor emeritus of chemistry at the University of Cincinnati, Cincinnati, Ohio, 11 June; **Katharine Blunt,** 78, chemist, author, and president emeritus of Connecticut College, New London, Conn., 29 July; **Jacques E. Brandenberger,** 81, dye chemist and inventor of cellophane, Zurich, Switzerland, 13 July; **Cornelius G. Brennecke,** 48, nuclear physicist and head of the department of electrical engineering at North Carolina State College, Raleigh, N.C., 2 Aug.; **Morris Cohen,** 51, author and chairman of the department of endodontia at New York University College of Dentistry, New York, N.Y., 24 July; **Ferry B. Colton,** 51, author and assistant editor of the *National Geographic,* Washington, D.C., 10 Aug.; **John J. Costa,** 61, author, civil engineer, and dean of the lay faculty of Manhattan College, New York, N.Y., 14 July; **Samuel J. Crumbine,** 91, author, former general executive of the American Child Health Association and dean of the School of Medicine at Kansas University, Lawrence, Kans., 12 July.

Marion F. Dondale, past president of the Medical Library Association and associate professor of Medical literature at Albany Medical College, Albany, N.Y., 28 June; **David Fairchild,** 85, author, horticulturist, and director of the office of plant introduction, U.S. Agriculture Department, Miami, Fla., 6 Aug.; **Donald T. Fraser,** 65, immunologist and associate director of the Connaught Medical Research Laboratories at the University of Toronto, Toronto, Canada, 20 July; **William O. Hotchkiss,** 76, mining engineer, geologist, and emeritus president of Rensselaer Polytechnic Institute, Troy, N.Y., 20 June; **John C. Hubbard,** 75, pioneer in the field of ultrasonics and research professor of physics at Catholic University, Washington, D.C., 2 Aug.; **Harold L. Hunt,** 72, author, editor, and former assistant professor of surgery at Columbia University, New York N.Y., 16 July; **Walter S. Hunter,** 63, author, associate editor of the *American Journal of Psychology,* and chairman of the department of psychology at Brown University, Providence, R.I., 3 Aug.; **Jacob M. Johlin,** 70, professor emeritus of biochemistry at Vanderbilt University Medical School, Nashville, Tenn., 21 July.

L. J. Moorman, 79, author, editor, tuberculosis authority, and former dean of the University of Oklahoma Medical School, Oklahoma City, Okla., 2 Aug.; **Theophile Moreux,** 87, author, astronomer, professor of mathematics, and director of the observatory at Bourges, France, 13 July; **Henry A. Rafsky,** 64, author, research gastroenterologist, and chief of the gastroenterological clinic at Lenox Hill Hospital, New York, N.Y., 31 July; **George H. Schuler,** 59, author and director of the technical laboratory, dyes and chemical division, E. I. du Pont de Nemours & Co., Deepwater, N.J,, 13 July; **James S. Simmons,** 64, author, retired chief of Army preventive medicine service, and dean of the Harvard School of Public Health, Boston, Mass., 31 July; **John A. Stalfort,** 66, engineer and president of the Consolidated Engineering Co., Baltimore, Md., 14 July; **Nathan B. Van Etten,** 88, medical educator and former president of the American Medical Association, New York, N.Y., 23 July; **Bert C. Williams,** 45, professor of biology at the University of Alabama, University, Ala., 6 July; **Albert F. Zahm,** 92, pioneer in aviation, inventor, former chief of the division of aeronautics at the Library of Congress, and former professor of mathematics and mechanics at the University of Notre Dame, South Bend, Ind., 23 July.