

NEWS

and Notes

Brookhaven National Laboratory, now under construction on the 6,000-acre site of Camp Upton, Long Island, New York, is a government-owned, government-financed atomic research project operated by Associated Universities, Inc., under contract with the U. S. Atomic Energy Commission. The Laboratory's program will be oriented toward the development of fundamental scientific information on the nature and properties of atomic energy, its application to chemistry, physics, medicine, and biology, and improved techniques for the production of atomic power and the preparation of radioactive isotopes.

Results of studies carried on will be unclassified.

Facilities will include a graphite uranium pile, a "hot" laboratory for the purpose of separating radioactive isotopes, still another pile with 100 times the neutron flux of the first, a 30,000,000- to 40,000,000-electron volt cyclotron, a 600,000,000- to 1,000,000,000-electron volt synchrocyclotron, an electronuclear machine in which electrons or positive particles may be accelerated to energies of 1,000,000,000 volts, and various other forms of apparatus beyond the reach of individual institutions. Prior to completion of the larger equipment the staff will experiment with cosmic rays and induce radioactive substances such as C^{14} .

Ultimately, a permanent staff of 300 scientists will be assigned to the Laboratory. In addition, there will be a visiting staff of about 200 and administrative, technical, maintenance, and service personnel totaling about 2,000. It is expected that about 100 scientists will have been assigned by the fall of 1947.

Associated Universities, Inc., is a nonprofit corporation formed by 9

major eastern universities, each of which nominates two trustees. The universities and their representatives follow: Columbia University—I. I. Rabi and George B. Pegram; Cornell University—F. A. Long and A. S. Adams; Harvard University—G. B. Kistiakowsky and Edward Reynolds; Johns Hopkins University—R. D. Fowler and P. S. Macaulay; Massachusetts Institute of Technology—J. R. Zacharias and J. R. Killian, Jr.; University of Pennsylvania—L. N. Ridenour and W. H. DuBarry; Princeton University—H. D. Smyth and G. A. Brakeley; University of Rochester—George B. Collins and R. L. Thompson; Yale University—W. W. Watson and E. W. Sinnott; Between full meetings of the Board of Trustees an Executive Committee (see cover) acts with authority in determination of Laboratory policies. Eldon C. Shoup, full-time executive vice-president of AUI, is responsible for executing the policies and programs of the Board. The director of the Laboratory, Philip M. Morse, is assisted by a Scientific Advisory Committee, the membership of which is composed of the 9 scientists on the Board of Trustees. Assistant director of the Laboratory is Robert A. Patterson.

The activities of the Laboratory are to be organized departmentally around fundamental fields of research. The Physics Department, which has already begun its work, is headed by N. F. Ramsey. Also under way are the Electronuclear Machines Project, under M. Stanley Livingston, and the First Pile Project, headed by Lyle B. Borst.

In the words of the director, "By our research in physics and chemistry, we hope to learn more about the behavior of atoms so as to control atomic energy for beneficial uses. In biology and medicine, we will learn more about living organisms, in order to develop methods of treatment for diseases such as cancer and many other ills. By fundamental research in engineering, we hope to be able to speed the development of atomic power production."

The Executive Committee of the Inter-Society Committee for a National Science Foundation has endorsed S. 526 (the Smith Bill) with two suggested amendments. First is that the number of members of the Foundation be reduced from 24 to 9. Second is the recommendation that the Director be appointed by the President, after consulting with the members of the Foundation, by and with the advice and consent of the Senate. These recommendations were made on May 1 in letters to Senator Taft, chairman of the Senate Committee on Labor and Public Welfare, Senator Smith, principal author of the bill, and Representative Wolverton, chairman of the House of Representatives Committee on Interstate and Foreign Commerce. That Committee is considering science foundation bills in the House of Representatives.

The Executive Committee met in Washington, D. C., April 28. The meeting was attended by Edmund E. Day, Ralph W. Gerard, Harlow Shapley, C. G. Suits, Homer W. Smith, Douglas Whitaker, and Dael Wolfe.

About People

Carl C. Lindegren, research professor of botany, Washington University, St. Louis, spent the month of April at the University of Washington, Seattle, as a Walker Ames professor of botany. His series of lectures will be published in the near future under the title *Yeast genetics*.

Fernandus Payne, dean of the Graduate School, Indiana University, addressed the Sigma Xi Club of the University of Louisville April 18 on "The Cytology of the Pituitary Gland of the Fowl."

Peter R. Morrison, Department of Physical Chemistry, Harvard Medical School, has been appointed assistant professor of zoology and physiology at the University of Wisconsin, beginning in September.

Theodore L. Swenson, special assistant to the chief of the Bureau of Agricultural and Industrial Chemistry, Department of Agriculture, has been appointed head of the food technology

section of the Stanford Research Institute, where he will coordinate scientific research with developments in the food-processing industry.

H. H. Mottern, food research chemist, has been appointed director of research of the H. J. Heinz Company, where he has been a member of the research staff since 1945. Previously Dr. Mottern was with the U. S. Department of Agriculture.

Donald F. Jones, geneticist at the Connecticut Agricultural Experiment Station, will address the members of the Plant Institute, Ohio State University, May 19, on "Our Concepts of Hybrid Vigor Today and Yesterday." At a dinner to be held in his honor, Dr. Jones will speak on "The Development of Hybrid Seed Corn in the United States."

John A. C. Bowles, associate director, Research and Control Department, Rexall Drug Company, has been appointed director of the newly-created Product Development Laboratory, Medical Research Division, Sharp & Dohme, Inc.

Grants and Awards

Selman A. Waksman will receive the 1947 Passano Foundation Award of \$5,000 at a presentation dinner scheduled for June 12, during the week of the meetings of the American Medical Association in Atlantic City. In addition to Dr. Waksman's address, "Antibiotics and Tuberculosis—A Microbiological Approach," the program will include a brief address by Sir Howard Florey, Oxford, England, who was knighted for his development of the clinical applications of penicillin.

Dr. Waksman receives the award for his original research in the field of antibiotics culminating with his discovery of streptomycin. The Passano Foundation, established in 1943 by The Williams & Wilkins Company, medical publishers, Baltimore, Maryland, provides the award to encourage medical research, especially that which has clinical application.

Clyde E. Keeler, a member of the faculty, Georgia State College for Women, Milledgeville, received the prize offered for the first time by the Association of Southeastern Biologists for the best research paper presented at its annual meeting. Dr. Keeler's prize-winning report

was entitled: "Modification of Brain and Endocrine Glands as an Explanation of Altered Behavior Trends in Coat-Character Mutant Strains of the Norway Rat."

The 1947 **Edward L. Bernays Atomic Energy Award** of a \$1,000 U. S. Government bond will be made by the Society for the Psychological Study of Social Issues to the individual or group contributing the best action-related research in the field of the social implications of atomic energy, according to an announcement by David Krech, chairman of the Award Committee. All research published or completed in 1947 or manuscripts reporting such research but not yet published are eligible for consideration. Reports must be submitted in duplicate not later than November 1, 1947. All communications relative to the Award should be addressed to Dr. David Krech, Swarthmore College, Swarthmore, Pennsylvania.

Colleges and Universities

Stanford University has announced the following promotions: Hubert S. Loring and Richard A. Ogg, Jr., professors of chemistry; Orson Cutler Shepard, professor of mineral sciences; Reed Clark Rollins, associate professor of biological sciences; Robert Lewi; Bacon and William A. Bonner, assistant professors of anatomy and chemistry.

California Institute of Technology has adopted a new faculty salary plan based upon 12- rather than 9-month appointments, according to an announcement by Lee A. DuBridge, president. The plan will provide for a month's vacation and leave of absence either with or without pay, depending upon the type of work to be done by faculty members during such periods. The new appointment plan will enable faculty members to do research, study, preparation of course material, teaching, student supervision, and administration work on or off campus during the summer months. This plan, which will also include substantial salary increases, will become effective July 1.

Simmons College, Boston, has announced the following promotions, to become effective July 1: Philip M. Richardson, to professor of biology; Julian L. Solinger, to associate professor of biology; and Shirley T. Northrup, to assistant pro-

fessor of chemistry. New appointments to the faculty are: Mary P. Crumley, instructor in biology, and Yorick G. Hurd, instructor in physics.

Elections

The **National Academy of Sciences** elected the following officers during its annual meeting, held in Washington, D. C., April 28-30: Alfred N. Richards, University of Pennsylvania, president for a four-year term; F. E. Wright, Carnegie Institution of Washington, re-elected home secretary for a four-year term; W. Albert Noyes, University of Rochester, and Donald D. Van Slyke, Hospital of the Rockefeller Institute for Medical Research, members of the Council of the Academy for three-year terms.

Newly elected members of the Academy are: Luis W. Alvarez, professor of physics, University of California, Berkeley; Robert F. Bacher, U. S. Atomic Energy Commission, Washington, D. C.; Paul D. Bartlett, professor of chemistry, Harvard University; Jacob Bjerknes, professor of physics, University of California at Los Angeles; Francis G. Blake, dean of Yale University School of Medicine; R. Alexander Brink, chairman, Department of Genetics, University of Wisconsin; Ralph W. Chaney, professor of paleobotany and curator of paleobotany, Museum of Paleobotany, University of California, Berkeley; Arthur C. Cope, professor in charge of Department of Chemistry, Massachusetts Institute of Technology; Farrington Daniels, professor of physical chemistry, University of Wisconsin; Arnold Gesell, director, Clinic of Child Development, Yale University School of Medicine; James Gilluly, professor of geology, University of California at Los Angeles; R. B. Goldschmidt, professor of zoology, University of California, Berkeley; Samuel A. Goudsmit, professor of physics, Northwestern University; C. H. Herty, Jr., research engineer and assistant to vice-president, Bethlehem Steel Company; Frederick L. Hisaw, professor of zoology, Harvard University; Wolfgang Köhler, professor of psychology, Swarthmore College; L. G. Longworth, associate member, Rockefeller Institute for Medical Research; Edwin M. McMillan, professor of physics, University of California, Berkeley; Walter J. Meek, acting dean, Medical School, University of Wisconsin; J. L. Oncley, director, Ultracentrifuge Laboratory, Harvard University Medical

School; Lars Onsager, professor of chemistry, Yale University; John P. Peters, professor of medicine, Yale University; Paul A. Smith, professor of mathematics, Columbia University; C. Richard Soderberg, professor of applied mechanics, Massachusetts Institute of Technology; Paul Weiss, professor of zoology, University of Chicago; F. W. Went, professor of plant pathology, California Institute of Technology; Robert E. Wilson, chairman, Board of Directors, Standard Oil Company of Indiana; and E. Bright Wilson, Jr., professor of chemistry, Harvard University.

New foreign associates of the Academy are: P. A. Alexandroff, professor of mathematics, University of Moscow; K. Linderstrøm-Lang, head, Chemical Division, Carlsberg Laboratory, Copenhagen, Denmark; J. N. Bronsted, professor and director, Institute for Physical Chemistry, Copenhagen, Denmark; Björn Helland-Hansen, director, Geophysical Institute, Bergen, Norway; and Frederic Charles Bartlett, director, Psychological Laboratory, Cambridge, England.

Walter D. Lambert, U. S. Coast and Geodetic Survey, president of the International Association of Geodesy, on January 13 was elected a correspondent of the Paris Academy of Sciences, Institut de France, in the Section of Geography and Navigation. He succeeds Father Pierre Lejay, who was elected a non-resident member of the Academy.

Wendell G. Scott, associate professor of clinical radiology at Washington University School of Medicine, has been re-elected president of the St. Louis Radiological Society for 1947.

The Hawaii Chapter of the Society of the Sigma Xi was officially installed March 19 in Honolulu during the University of Hawaii's 40th anniversary celebrations. Harlow Shapley and Karl T. Compton installed the following officers: John H. Beaumont, director of the University of Hawaii Agricultural Experiment Station, president; Robert W. Hiatt, associate professor of zoology, vice-president; O. A. Bushnell, assistant professor of bacteriology, secretary-treasurer; and Janet Smith, associate professor of education, and C. E. Pemberton, chief entomologist, Hawaiian Sugar Planters' Association, councilors.

The Hawaii Chapter is the 98th chapter to be formed and the first to be recog-

nized by the national society beyond the continental limits of North America.

The Eastern Psychological Association elected the following officers at its meeting in Atlantic City on April 25-26: J. McV. Hunt, Institute of Welfare Research, Community Service Society of New York, president, 1947-48; Harold Seashore, Test Division, Psychological Corporation, secretary, 1947-49; Weston A. Bousfield, University of Connecticut, treasurer, 1947-50; O. Hobart Mowrer, Graduate School of Education, Harvard University, and Helen Peak, Connecticut College for Women, directors, 1947-50.

Recent Deaths

Morgan Brooks, 86, professor emeritus of electrical engineering at the University of Illinois, died April 23 in Washington, D. C.

Sir Almroth Wright, 85, fellow of the Royal Society and former director of the Institute of Pathology, St. Mary's Hospital, London, died at his home, Farnham Common, Buckinghamshire, on April 30. Sir Almroth originated the system of inoculations for typhoid, enteric tuberculosis, and pneumonia and developed methods to measure their effects on the blood.

Abel Joel Grout, 80, bryologist and author of many books on mosses, died March 27 in East Bradenton, Florida.

The 50th annual volume of *The Bryologist*, journal of the Sullivant Moss Society, will be dedicated to Dr. Grout, founder of the journal and co-founder of the Society, according to an announcement by the editor, W. C. Steere, Department of Botany, University of Michigan. It is expected that the special anniversary issue will contain more than twice its usual number of pages.

J. Hunter Gooding, Jr., 55, sales manager of the Semesan Division, Grasselli Chemicals Department, Du Pont Company, died April 14 after an illness of more than a year.

Discovery of an Upper Pleistocene Human Skeleton at Tepexpan, Valley of Mexico

The studies on Early Man in the Valley of Mexico which have been carried out by the writer since November 1945 with the

aid of the Viking Fund, Inc., of New York, and with the cooperation of the Instituto Nacional de Geología and the Instituto de Antropología e Historia in Mexico City, reached a successful climax on February 22 with the discovery of a fossil human skeleton in the Upper Pleistocene Becerra formation near the village of Tepexpan, in the State of Mexico. The well-fossilized bones were found in an excavation at a depth of 1.12 meter in a buff-colored, silty clay—the same layer which had previously yielded several skeletons of the imperial elephant.

The geologic position and preservation of this fossil is such as to exclude all possibilities of intrusive burial or redeposition. It was found 30 cm. deep below the caliche formation, which in this region marks the beginning of the early Recent period. The caliche was diagnosed first by Prof. Kirk Bryan, of Harvard University, as a dry-climate fossil soil which represents the same dry climatic phase recognized by Dr. E. Antevs in the American Southwest and dated by him as 10,000 years old. The preceding Becerra formation represents the last Pluvial, when the Valley of Mexico was occupied by a lake whose beaches are preserved near the site. The fossil-bearing layer marks the closing phase of the Becerra Pluvial, when the lake level had fallen and a swampy lagoon had formed near Tepexpan. It is presumed that an entire herd of mammoth was trapped on the swampy ground and that prehistoric man was somehow involved in the event.

The precise location of the excavation was given by a preliminary geophysical survey carried out by Dr. Hans Lundberg, of Toronto, Canada. The spot marked the point of greatest electrical resistance offered to an alternating current artificially introduced into the ground in the manner of the linear electrode method. Without this geophysical survey the fossil could not have been located, since the ground offered no clues other than the presence of several buried mammoth remains found scattered over a portion of a flat lake plain 3,000,000 square meters in extent. To my knowledge, this is the first successful application of a geophysical device in the search for Early Man. The total cost of the instruments did not exceed \$600. The plotting of equipotential lines between two electrodes took 9 days, but might have been done more quickly had various demonstrations not interrupted Dr. Lundberg's survey.

The position of the skeleton suggests that the person, an adult male, met with an accidental death. The body lay doubled up with legs drawn up to the chest, face downward, and must have sunk partially into mud so that the buried portion escaped the scavenging action of animals which may be held responsible for carrying off the feet, hip bones, most of the chest, backbones, and shoulder blades. Such an explanation would account best for the peculiar preservation and position of the buried skeletal remains.

In this connection it is of interest to note that the writer had previously found stone and bone artifacts at three different localities in the Becerra formation. These were found in deposits containing rolled bones of elephant, bison, horse, and *Glyptodon*. Equally interesting is the fact that a small flake of obsidian was found by Ing. A. R. V. Arellano with an elephant skull some 1,000 feet distant from the new site. A fragmentary, Folsom-like point was found on the hillside near by. The artifacts from the Becerra formation include three graves, a scraper, and a bone point.

The fossil human remains are now in the Museo Nacional de Antropologia, Mexico City. Dr. J. Romero and Miss Johanna Faulhaber cleaned the remains of the clay matrix, and Dr. Romero has given me a tentative identification. While the facial portion of the skull and the lower mandible are broken, complete reconstruction appears possible. Besides the skull there are the following, partly fragmentary bones: 2 femurs, 2 kneecaps, 2 broken tibiae, 2 fibulae, 2 collar bones, 3 small rib fragments, 1 atlas and 3 fragmentary cervicals, 2 humeri, 1 complete right radius and 1 fragmentary left radius, 2 broken ulnae, 7 wrist bones of both hands, 5 metacarpals of both hands, and 13 finger bones.

A preliminary measurement of the skull showed it to be of mesocephalic type. It is peculiarly high but does not bear any truly primitive features.

The excavation site and vicinity have been mapped by Mr. Kenneth Segerstrom, topographical engineer of the U. S. Geological Survey, on a scale of 1:5,000. The site was visited during the first week after its discovery by Dr. Clarence Ross and Mr. C. Fries of the U. S. Geological Survey, Drs. Gordon F. Eckholm of the American Museum of Natural History, Henry Field, Alfonso Caso, Eduardo No-guerra, Dr. de la Borbolla, and Ing. R.

Manges Lopez, director of the Instituto Nacional de Geologia. (HELMUT DE TERRA, *Calle Tigris, Mexico, D. F.*)

Since the receipt of Dr. de Terra's note on the Tepexpan discovery Dr. Franz Weidenreich has made a preliminary report on the anatomical character of this skeleton. His report follows:

The general character of the bones indicates that the individual belongs to the recent human type (*Homo sapiens*).

Although the skull does not reveal any special primitive feature characteristic of early hominids (the total calvarial height being about 140 mm.—rather noteworthy considering the size of the skull), there are some structural peculiarities which are more primitive than those usually found in modern human skulls. The frontal and occipital superstructures are well developed. Both come very close to real torus formations. The frontal superstructure consists of a distinct eyebrow ridge on both sides. The ridge extends to the glabella region and turns downward to the frontonasal suture, forming a well-marked supranasal torus such as occurs in the Australian bushman of today and in other "primitive races." The supraorbital ridges proper show an advanced stage of deterioration, but the original character of the ridge is easily recognizable. The occipital bone exhibits a typical occipital torus which resembles even the condition found in Neanderthal skulls. Similar primitive features are recognizable at the nuchal peanum, the mastoid, and the parietal region (temporal line).

These primitive features are not restricted to the brain case. They occur also in the extremity bones in which they appear under the form of pronounced muscular tuberosities (deltoid tuberosity of the humerus, crista interossea, and crista musculi pronator quadratus of the radius).

The facial skeleton does not show any special primitive features. There is neither a general nor an alveolar prognathism. The teeth, so far as they are preserved, are those of modern man.

Regarding special racial characteristics, the present condition of the facial parts does not permit a definite diagnosis. The nasal bones are "pinched," a peculiarity frequently encountered in certain Mongoloid types (Eskimo). The cheek-

bone, on the other hand, is small and does not project to a marked extent neither forward or sideward. The crows of the upper incisors are not preserved; hence, it is impossible to recognize whether or not these teeth were shovel shaped (Mongolian characteristic).

The brain case has a particular form: the vertex region is pronouncedly domed without showing any indication of artificial deformation. This shape may help to determine the special group to which the skull must be attributed.

None of the bones is very robust; on the contrary, they rather appear to be of a generally fine structure. Although this suggests female sex, the strongly developed muscular tuberosities prove that the individual was a male.

The tentative estimation of the cranial capacity is from 1,350 to 1,450 cc.

Taking all morphological facts into consideration, as far as it is possible to do so at this moment, it can be stated that none of them contradicts the possibility that the Tepexpan skeleton is that of an individual who lived at the end of the Pleistocene period. All the skeletons of Upper Paleolithic man known from Europe, Asia, and Africa already show the features characteristic of recent mankind. In most cases really primitive characteristics are completely missing. Wherever features were found recalling primitive conditions, they showed a more or less pronounced degree of deterioration, as is the case with the Tepexpan man.

Because of the inconclusiveness of the anatomical character of the skeleton, its identification as one of Pleistocene age cannot be based on anatomical evidence alone. An important criterion in this respect is the degree of fossilization of the bones. All the bones of the Tepexpan skeleton are mineralized, but the degree of mineralization varies: the lower jaw, for example, shows a higher degree than the brain case and the remaining facial bones. In the extremity bones, the mineralization led to a complete metamorphosis of the internal structure of the compacta, such as is typical of human bones from the Middle Pleistocene of China and Java.

If the stratigraphy of the Tepexpan skeleton proves the Pleistocene age, the anatomical character and the degree of its mineralization lends strong support to this assumption.

Meetings of Affiliated and Associated Societies

The following list of meetings is based on reports submitted to AAAS headquarters by society secretaries:

Section A: Mathematical Association of America, September 1-2, New Haven, Connecticut; Institute of Mathematical Statistics, December 26-31, Chicago, Illinois; American Mathematical Society, December 29-31, University of Georgia, Athens.

Section B: American Association of Physics Teachers, June 18-21, University of Minnesota, Minneapolis, and December 26-31, Chicago; American Society for X-Ray and Electron Diffraction, June 23-25, Montreal, Canada; Society of Rheology, October 30-31, New York City; American Physical Society, December 26-31, Chicago; Sigma Pi Sigma, December 26-31, Chicago.

Section C: American Association of Cereal Chemists, May 19-23, Kansas City, Missouri; American Oil Chemists' Society, May 20-22, New Orleans, Louisiana; American Chemical Society, September 15-19, New York City; American Institute of Chemical Engineers, November 9-11, Detroit, Michigan.

Section D: The Meteoritical Society, June 16-21, San Diego, California; American Astronomical Society, September, Evanston, Illinois.

Section E: American Society for Professional Geographers, December 27-30, Charlottesville, Virginia; Association of American Geographers, December 29-31, Charlottesville; Geological Society of America, December 29-31, Ottawa, Canada; Paleontological Society, December 28-31, Ottawa; National Council of Geography Teachers, December 27-29, Charlottesville.

Sections F and FG: Federation of American Societies for Experimental Biology, May 18-22, Chicago; Western Society of Naturalists, June, San Diego; Herpetologists League, June 16-21, San Diego; American Society of Mammalogists, August 24-27, Higgins Lake, Michigan; American Malacological Union, American Microscopical Society, American Society of Naturalists, Ameri-

can Society of Parasitologists, Ecological Society of America, Entomological Society of America, Genetics Society of America, Linological Society of America, National Association of Biology Teachers, Phi Sigma Society, and Union of American Biological Societies, December 26-31, Chicago; Beta Beta Beta, December 27-28, Chicago; American Society of Zoologists, December 29-31, Chicago.

Section G: American Fern Society, American Society of Plant Physiologists, American Society of Plant Taxonomists, Botanical Society of America, Inc., Mycological Society of America, and Sullivant Moss Society, December 26-31, Chicago; American Phytopathological Society, December 28-30, Chicago.

Section H: American Folk-Lore Society, December, Detroit, Michigan; American Anthropological Association, December 27-30, Toronto, Canada; Archaeological Institute of America, December 29-31, New Haven, Connecticut.

Section I: American Psychological Association, September 9-13, Detroit; Society for Research in Child Development, December 27, Chicago.

Section K: Population Association of America, May 17-18, Princeton, New Jersey; Econometric Society, September, Washington, D. C., and December 26-31, Chicago; Academy of World Economics, December 26-31, Chicago; American Sociological Society, December 28-30, New York City; American Statistical Association, December 26-31, Chicago; Pi Gamma Mu, December 26-31, Chicago; American Economic Association, December 27-30, Chicago; Metric Association, Inc., December 27, Washington, D. C.

Section L: History of Science Society, December, Cleveland, Ohio; Philosophy of Science Association, December 26-31, Chicago; American Philosophical Association, December 28-31, New York City.

Section M: American Society of Heating and Ventilating Engineers, June 1-4, Coronado, California; American Society of Refrigerating Engineers, June 9-11, Los Angeles, California; American Institute of Electrical Engineers, June 9-13,

Montreal, Canada; American Society of Mechanical Engineers, June 16-19, Chicago; Society for the Promotion of Engineering Education, June 19-21, Minneapolis, Minnesota; American Society of Agricultural Engineers, June 22-25, Philadelphia, Pennsylvania; Illuminating Engineering Society, September 15-19, New Orleans, Louisiana.

Section N: Society of American Bacteriologists, May 13-16, Philadelphia; American Society of Experimental Pathology, May 17-22, Chicago; American Physiological Society, May 18-22, Chicago; American Psychiatric Association, May 19-23, New York City; American Medical Association, June 9-13, Atlantic City, New Jersey; American Association of Dental Schools, June 23-25, Chicago; American Association of Colleges of Pharmacy, August, Milwaukee, Wisconsin; American Veterinary Medical Association, August 18-21, Cincinnati, Ohio; American Pharmaceutical Association, August 24, Milwaukee; American Roentgen Ray Society, September 14-19, Atlantic City; American Public Health Association, October 6-10, Atlantic City; American Academy of Ophthalmology and Otolaryngology, October 12-17, Chicago; American Dietetic Association, December 26-31, Chicago.

Section O: Association of Official Seed Analysts, June 2-5, Richmond, Virginia; Agricultural Institute of Canada, June 23-26, Lethbridge, Alberta; American Dairy Science Association, June 24-26, Ontario, Canada; American Society of Animal Production, November 28-29, Chicago; Society of American Foresters, December 18-20, Minneapolis; American Society for Horticultural Science, December 26-31, Chicago; Potato Association of America, December 27-29, Chicago.

Section Q: Pi Lambda Theta, August 10-13, Portland, Oregon; Canadian Teachers' Federation, August 11-15, Halifax, N. S.; National Science Teachers Association, December 26-31, Chicago; Phi Delta Kappa, December 27-31, Kansas City, Missouri.

All Sections: Research Council on Problems of Alcohol, May, New York City, and December 26-31, Chicago; American Nature Study Society, Sigma Delta Epsilon Graduate Women's Scientific Fraternity, and Society of the Sigma Xi, December 26-31, Chicago.