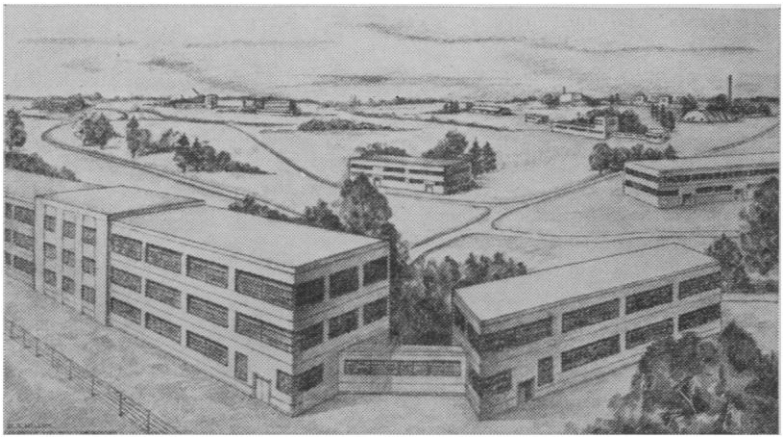
NEWS *and Notes*

A new location for the Argonne National Laboratory for research and development in atomic energy, and acquisition of 3,645 acres of land in Du Page County, Illinois, were approved recently by the U. S. Atomic Energy Commission. The site is approximately 26 miles southwest of the center of Chicago, and 4 miles west of facilities of the Laboratory in the Palos Area of Cook County Forest Preserve.

Argonne National Laboratory was established for research and development in all phases of atomic energy, including fundamental research in physics, chemistry, biology, medicine, and engineering; the development of industrial power; and research on military uses.



Artist's sketch of proposed facilities of the Argonne National Laboratory.

Present facilities of the Laboratory are housed in four buildings on the campus of the University of Chicago, the Museum of Science and Industry, and the Palos Area of Cook County Forest Preserve. Operating difficulties due to wide dispersion of facilities were apparent early, and a permanent site was sought. The Board of Governors of Argonne National Laboratory, of which Farrington Daniels is chairman, chose Chicago as the permanent site because of its geographical location and transportation advantages.

Prime consideration in the search for a permanent location was engineering features of the land. Topography, prevailing meteorological conditions, type of foundation, and available water, sewage, and power facilities were considered, and the Du Page County site was the only area investigated which satisfied all requirements. In addition, its proximity to the present Forest Preserve site will allow maximum use of facilities there during the transition period.

"Construction plans for the permanent buildings of the Argonne National Laboratory," Walter H. Zinn, director, said, "call for some 12 major buildings to house administration; physics, chemistry, biology, medical and engineering research; nuclear reactors and allied equipment. Construction will be spread over a period of approximately three years."

Argonne Laboratory, one of a projected series of national laboratories, is successor to the wartime Metallurgical Laboratory of the Manhattan Engineer District. Its facilities are operated by the University of Chicago under contract with the Atomic Energy Commission. The Board of Governors of the Laboratory, comprised of 7 representatives elected by the Council of Participating Institutions—midwestern academic and research institutions—reviews matters of general policy and makes necessary recommendations for submission to the Contractor and the Government. A representative from each of the 25 participating institutions serves as a member of the Council.

The participating institutions are: Battelle Memorial Institute, Carnegie Institute of Technology, Case School of Applied Science, Illinois Institute of Technology, Indiana University, Iowa State College, Mayo Foundation, Michigan State College, Northwestern University, Notre Dame University, Washington University, Western Reserve University, University of Chicago, University of Cincinnati, University of Illinois, University of Iowa, University of Michigan, University of Minnesota, University of Missouri, University of Nebraska, University of Pittsburgh, and University of Wisconsin.

About People

James B. Conant, president of Harvard University, delivered a special address to the staff and student body of the University of Texas Medical Branch, Galveston, February 21; on "The Growing Relations of Chemistry and Medicine."

C. L. Bird, lecturer in dyeing at Leeds University, England, has been appointed editor of the *Journal of the Society of Dyers and Colourists* to succeed F. M. Rowe, who died December 8 (*Science*, February 14). Mr. Bird was previously assistant editor of the journal.

Donald Wallace MacKinnon, professor of psychology, Bryn Mawr College, has accepted an appointment as professor of psychology at the University of California, Berkeley, beginning in September 1947.

Laurence H. Snyder, chairman, Department of Zoology and Entomology, Ohio State University, delivered the Marshall Woods Memorial Lecture at Brown University February 18, on "Human Genetics and Public Health."

Peter Gray, professor of biology, was named head of the Department of Biological Sciences, University of Pittsburgh, in February. He has been acting head since February 1946, when O. E. Jennings resigned to become director of the Carnegie Museum.

L. Don Leet, in charge of the Harvard Seismograph Station, was recently appointed professor of geology at Harvard University.

I. S. Ravdin, John Rhea Barton professor of surgery, University of Pennsylvania, will deliver the 14th E. Starr Judd Lecture April 15 at the University of Minnesota, Minneapolis, on the subject, "Changing Concepts in Surgical Care." The late E. Starr Judd, an alumnus of the University of Minnesota Medical School, established this annual lectureship in surgery a few years before his death.

Harold H. Biswell, in charge of range research, Appalachian Forest Experiment Station, Asheville, North Carolina, will join the Department of Forestry, University of California, Berkeley, in May.

Harris M. Benedict recently became senior plant physiologist and **Carl A. Taylor** became research agriculturist for the Natural Rubber Research Project at Salinas, California (*Science*, January 27, 1946). The work is being performed by Stanford Research Institute under contract with the Office of Naval Research as a fundamental study of the genetics and physiology of rubber-bearing plants.

Henry S. Sharp, Department of Geology and Geography, Barnard College, Columbia University, will spend about six months in Japan and the South Pacific Islands as geologist for the Military Geology Unit of the U. S. Geological Survey.

Visitors to U.S.

Honor B. Fell, director of the Strangeways Laboratory, Cambridge, England, spent a week, beginning February 17, at the University of Texas Medical Branch inspecting research studies in the Tissue Culture Laboratory, which is under direction of Charles M. Pomerat. Dr. Fell also participated in developing special tissue culture techniques for the *in vitro* study of cellular enzyme and growth systems.

Hsiao-Chien Chang and **Pao-Chang Hou,** dean of Hsiang Ya Medical College, Changsha, Hunan, China, and professor of pathology, Cheeloo University, Tsinan, China, respectively, were visitors at Duke University School of Medicine November 10–17. As guests of the U. S. State Department they will continue to visit American medical institutions until June 1947. Dr. Chang addressed the undergraduate medical society on "Medical Education in China," and Dr. Hou lectured to the Duke faculty and student body on "Leprosy and Plague" and "Kala-Azar."

Fellowships

Socony-Vacuum Oil Company, Inc., New York, has announced an appropriation of $20,000 to establish 10 annual $2,000 fellowships in chemistry and physics at leading educational institutions.

For the next academic year the fellowships have been awarded to the California Institute of Technology, Harvard University, University of Illinois, Massachusetts Institute of Technology, University of Notre Dame, Ohio State University, Princeton University, Rice Institute, University of Wisconsin, and Yale University.

Recipients, who must have at least one year of graduate work, are not required to study subjects connected with the petroleum industry.

Grants and Awards

James Irvin Hoffman, member of the chemical staff of the Bureau of Standards since 1919, was awarded the 1946 Hillebrand Prize in chemistry at a meeting of the Chemical Society of Washington, March 13. Dr. Hoffman was cited for the concept and demonstration of the use of ether in removing impurities from crude uranium, and also for work in a new process of alumina production. The Hillebrand Prize, established in 1925 in honor of William Francis Hillebrand, chief chemist of the National Bureau of Standards from 1908 to 1925, is made each year to a member of the Chemical Society of Washington who has made outstanding contributions to chemistry during the preceding three years.

Pi Lambda Theta, National Association for Women in Education, announces two awards of $400 each to be granted again this year for research on any aspect of the professional problems and contributions of women in education or another field. Three copies of the final report of the completed research study should be submitted to the chairman of the Committee on Studies and Awards, Bess Goodykoontz, U. S. Office of Education, Washington 25, D. C., before July 1.

The Robert Gould Research Foundation of Erlanger, Kentucky, has established 2 grants of $1,500 for student training in nutrition and 10 grants-in-aid of research for 1947–48. The grants-in-aid of $2,000 each will be distributed equally in the following fields: recognition of preclinical nutritional deficiencies; human nutritive requirements; most effective techniques for educating the public in nutrition; improvement in nutritive value of human food as grown; and improvement in the nutritive value of animal food.

Inquiries may be addressed to: Arthur Lejwa, Scientific Director, The Robert Gould Research Foundation, Inc., Cincinnati 2, Ohio.

Colleges and Universities

The California Institute of Technology, Pasadena, has established the David Lindley Murray Education Fund with a gift of $300,000 from Mrs. Katherine Murray, income of which will provide 15 scholarships. Mrs. Murray, with her husband, for whom the fund is named, had been a visitor to Pasadena from Illinois for many years prior to her death in 1944.

The University of Michigan, Ann Arbor, has granted sabbatical leaves of absence to A. D. Moore, professor of electrical engineering, in the 1946–47 spring semester, and Charles H. Griffits, professor of psychology, in the 1946–47 second semester.

Harvard University's engineering laboratories are now testing samples of soil and rock from the Isthmus of Panama in connection with proposals for new canal facilities for ships passing from the Atlantic to the Pacific.

The University has started extensive engineering studies of canal problems in the area to determine the best means of providing for growth of interoceanic commerce and protecting the security of the Nation.

Plans for several locations and types of canals are under consideration, among them addition of a third set of locks to the present canal, conversion of the present lock canal into a sea-level canal, and proposal to dig a new sea-level canal in

another part of the Isthmus. Selection of the plan, which will be presented to Congress before the end of 1947, will depend in part on tests to be performed within the next few months at the Harvard engineering laboratories.

Harald M. Westergaard, professor of civil engineering, Arthur Casagrande, professor of soil mechanics and foundation engineering, and L. Don Leet, seismologist and professor of geology, are now engaged in the Isthmian Canal studies. Dr. Casagrande, in charge of the laboratory testing work, has under him William L. Shannon, loaned to the University by the War Department, and Liang-sheng Chen, engineer, who received his Doctor's degree from Harvard. Dr. Leet will be concerned with the effect of earthquake and volcanic activity on any proposed canal structure and the effect of vibrations set up by explosions and their bearing on the angle of slope of canal cuts.

New testing chambers are under design which will subject samples of soil and rock to dynamic forces resulting from explosions of present-day weapons. Electronic measuring devices are employed in a testing chamber known as the triaxial compression apparatus for dynamic loads. A sample of the soil or rock is put into the chamber, which consists of a lucite cylinder with substantial metal ends. Above the sample is a proving ring attached to a piston which exerts a load on the sample. The amount of load reaching the sample is measured electronically through strain gages mounted on the proving ring, and similarly, the amount of deformation of the sample is measured electronically by strain gages on a cantilever beam mounted on the piston. The pressure within the chamber can be raised to simulate conditions at the depths within the earth from which the sample comes.

Summer Programs

The Massachusetts Institute of Technology announces a special summer session in applied mathematics, from August 4 to September 19, in which the following graduate courses will be offered: Theory of Plates and Shells, by F. B. Hildebrand and E. Reissner; Theoretical Hydromechanics, by E. Reissner and C. C. Lin; Advanced Topics in Applied Mathematics, by J. L. Synge, H. Reissner, W. Prager, F. B. Hildebrand, and P. D. Crout; and Tensors in Mechanics, by D. J. Struik.

The Biological Laboratory, Cold Spring Harbor, Long Island, New York, is again offering a course for research workers by Mark H. Adams, of New York University. The course, designed to acquaint scientists with some of the techniques used in research with bacterial viruses and recent results of such work, will be held from June 30 to July 18.

Brown University's Graduate Division of Applied Mathematics will offer a special summer program of instruction in Modern Mechanics of Fluids and Solids with particular emphasis on nonlinear problems, July 7–August 30.

The session, open to advanced graduate students, instructors, and research personnel of government and industry, will consist of two periods, July 7–August 1, and August 5–30. During each period a course in fluid mechanics and another in mechanics of solids will be offered, each course consisting of 20 lectures and 12 discussion periods. Instruction will presuppose a good foundation in classical fluid dynamics and theory of elasticity.

Courses offered will be Dynamics of Viscous Fluids, by Chia-Chiao Lin, Brown University; Theory of Structural Stability, George Francis Carrier, Brown University; Dynamics of Compressible Fluids, Sidney Goldstein, University of Manchester, England; and Theory of Plasticity, William Prager, Brown University.

Inquiries should be addressed to the Registrar, Graduate School, Brown University, Providence 12, Rhode Island.

Industrial Laboratories

A pound and a half of potassium phthalimide containing the "tracer" isotope, Nitrogen 15, and believed to be the largest quantity of an organic compound containing an isotope ever prepared was shipped recently from Rochester to Columbia University in New York.

According to C. F. H. Allen, assistant superintendent of Eastman Kodak's Synthetic Organic Research Laboratory, under whose direction the work was conducted, the Columbia group will convert the potassium phthalimide into special amino acids containing the isotopic nitrogen.

Kodak's concentration of isotopes, begun in 1940, is now being carried out on quite an extensive scale. The work will gradually become a part of the production program which supplies about 3,000 chemical compounds to research laboratories in the United States.

Assisting Dr. Allen in the work on Nitrogen 15 were C. Vernon Wilson and Donald Burness, of the laboratory staff.

Smith, Kline & French Laboratories, Philadelphia, Pennsylvania, announces appointment of Charles H. Fahrenholz, Jr., Grove City College, and George E. Fajcsi, Ohio State University, to its research staff.

The Chemical Research and Development Department, Armour and Company, Chicago, announces appointment of Lawrence L. Lachat, senior fellow at Mellon Institute, Pittsburgh, to direct development of new biochemicals which have become avilable largely as a result of war-time research under contract between Armour and the OSRD.

General Electric Company on March 31 began shipment of the first 100,000,000-volt betatron to be built on a commercial basis. The machine is being built by the Company's General Engineering and Consulting Laboratory for Clinton Laboratories at Oak Ridge, Tennessee. Shipment of final components will be completed by midsummer.

The new instrument for Clinton Laboratories, operated by the Monsanto Chemical Company for the Atomic Energy Commission, will weigh approximately 160 tons, and will be 9 feet high, 6 feet wide, and 15 feet long. General Electric is building a similar instrument for the University of Chicago to be used for nuclear research.

Meetings

The Medical Library Association will hold its 46th annual meeting in Cleveland, Ohio, May 27–29, at the invitation of the Cleveland Medical Library Association, with headquarters at the Wade Park Manor.

In addition to scientific sessions on May 27–28, a symposium, "Visual Aids and the Medical Library," will be held May 28. W. B. McDaniel, librarian of the College of Physicians of Philadelphia, will give the presidential address at the morning meeting, May 29.

The Association of Southeastern Biologists will hold its 8th annual meeting at Emory University, Georgia, April 18–19, with the southeastern section of the Botanical Society of America and the Southern Appalachian Botanical Club. All biologists in the Southeast are invited to attend.

The Fifth International Pediatrics Congress will be held July 14–17 at the Waldorf-Astoria Hotel, New York City.

The Congress, with L. Emmett Holt, Jr., Bellevue Hospital, New York, as general secretary, will consist of scientific discussions, a scientific exhibit, visits to medical institutions in New York, and a post-Congress tour. The scientific discussions will consist of 8 plenary sessions on nutrition, tuberculosis, alimentary toxicosis, virus diseases, chemotherapy, congenital heart disease, neonatal mortality, incompatibility of blood, as well as other subjects.

The scientific exhibit on display throughout the Congress will consist of 250–300 booths showing advances in pediatrics and the field of medicine as a whole.

Following the Congress, three days will be spent in visits to hospitals in New York City. Delegates will then be taken on a post-Congress tour to other cities along the Atlantic Seaboard and perhaps in the Middle West. In each city a scientific program will be presented, including visits to pharmaceutical and food industrial plants.

Elections

The American Association of Petroleum Geologists has elected as president Carroll E. Dobbin, regional geologist, U. S. Geological Survey, Denver, Colorado. Dr. Dobbin took office at the close of the 32nd annual meeting of the Association in Los Angeles, March 24–27.

The Potomac Division of the American Phytopathological Society, at its 4th annual meeting on February 20, elected V. F. Tapke, president; W. F. Jeffers, vice-president; W. W. Diehl, secretary-treasurer; and E. E. Clayton, councilor.

The Southern Society for Clinical Research, established to encourage research in the medical sciences, elected the following officers at its first annual meeting in New Orleans, January 25: Tinsley R. Harrison, Dallas, Texas, president; William J. Darby, Jr., Nashville, Tennessee, vice-president; and Thomas Findley, New Orleans, Louisiana, secretary-treasurer. The following are councilors: Paul B. Beeson, Atlanta, Georgia; Robert M. Moore, Galveston, Texas; Joseph W. Beard, Durham, North Carolina; and Harold B. Greene, Winston-Salem, North Carolina. The founders' group consists of 40 men from various medical schools in the South, but membership is not limited to academic institutions.

The Geological Society of Washington elected the following officers for 1947: W. P. Woodring, U. S. Geological Survey, president; Ernst Cloos, Johns Hopkins University, and C. H. Dane, U. S. Geological Survey, vice-presidents; M. K. Carron, of the Survey, treasurer; M. H. Krieger and G. T. Faust, also of the Survey, secretaries.

Recent Deaths

V. M. Goldschmidt, 59, director, Geological Museum, University of Oslo, Norway, died March 20. After several periods of imprisonment during the occupation of Norway, Dr. Goldschmidt escaped early in 1943 to Sweden and then to Scotland and England. He worked in the MacCauley Institute for Soil Research, Scotland, and Rothamstead Experimental Station in England during the remainder of the war.

Samuel Morris, a member of the chemistry staff of West Virginia University since 1916, died March 20 in Morgantown, West Virginia.

The American Board of Pathology has changed the dates of examinations to be given in 1947 to June 5–6 in Philadelphia and October 24–25 in Chicago. Applications for the Philadelphia examination will be received until May 1 and for that in Chicago until September 15. Inquiries should be sent to Robert A. Moore, American Board of Pathology, Washington University School of Medicine, St. Louis 10, Missouri.

The National Registry of Rare Chemicals, Armour Research Foundation, 35 West 33rd Street, Chicago, lists the following wanted chemicals: Trihexylamine; trihydroxyglutaric acid; mercuric metatellurate; cupric metaborate; 1-methylanthracene; cobaltic sulfate; gallium metal and salts; lead tetraoxysulfate; laccase; polyphenol oxidase; thioveronal; 1-glyceraldehyde; 1-glyceric acid; erythritol and anhydride; dl-cysteine hydrochloride; tantalum pentachloride; columbium pentachloride; emetine; diphenylhydroxylamine; and methylisopropylcyclopentanes.

A New York State Science Council will be provided under terms of a bill introduced in the state legislature by Thomas C. Desmond, state senator of Newburgh, New York, who said that "scientific changes, from splitting of the atom to supersonic airplane flight, demand that New York State plan wisely in a new Age of Science."

"Under the bill," he said, "the Governor, with the consent of the Senate, will appoint 20 members. Three need not be technical experts. The other 17 must be persons of 'outstanding qualifications and attainment,' one each from the following fields of scientific research: physics, chemistry, biology, botany, psychiatry, electrical engineering, sociology, agronomy, geology, zoology, anthropology, aeronautical engineering, bacteriology, surgery, medicine, civil engineering, and mechanical engineering.

"The Science Council will be empowered to: (1) make a continuous survey and study of modern developments in various phases of science and advise the Governor and legislature of such developments and their probable effect on the state generally and on social, commercial, and industrial institutions, health, power developments and other matters of state concern; (2) collect, analyze, and compile annually a list of scientific research projects contemplated by various state departments and agencies and advise such departments and agencies regarding the coordination, development, or restriction of such projects. This would result in a research priority list; and (3) develop a long range scientific research program for the state and encourage scientific research under public and private auspices.

"Members of the Council, who will receive no compensation except expenses, need not be residents of the state.

"Scientists, until recently, have been reluctant to get embroiled in the hurly-burly of shaping government decisions. Scientists must be encouraged to come

out of the laboratories and to assume some responsibility for guiding public policies.

"Creation of this Science Council," Senator Desmond continued, "will give our state the benefit of the advice and judgment of some of the foremost scientists in the country. It will probably save our state from making unwise outlays of money for projects which may be outmoded a few years after construction by scientific developments."

U. S. Civil Service Boards of Expert Examiners

Probably very few activities have forced as serious reconversion tasks following the war as has the U. S. Civil Service Commission. The great upsurge of Federal employment occasioned by war necessities made necessary new techniques in recruiting, examining, hiring, and classification of employees. Most of these were temporary emergency measures. In the field of scientific personnel the break with the past was even more dramatic because of the unprecedented employment necessitated by the technical jobs to be done. The secrecy attending this type of work still further complicated the employment pattern.

The reconversion to a peacetime civil service pattern has, therefore, been more than usually difficult in the field of scientific personnel. An earlier issue of *Science* (April 12, 1946) has reported the establishment of the Advisory Committee on Scientific Personnel by the Civil Service Commission. This Committee has studied many problems relating to the status of scientists in Federal employment and has made a number of recommendations to the Civil Service Commission. As one of its recommendations, the Committee suggested the widespread extension of the plan of boards of expert examiners, used in some cases earlier by the Civil Service Commission. This program has been accordingly widely extended, particularly for scientific personnel. The Commission has set up regulations governing this new departure, and already a number of such committees are functioning.

Sixty-five such committees have been established in 18 departments and agencies, 6 of these being major departments and 12 being agencies. Of the 51 agencies in the departmental service, 29 are expected ultimately to set up committees. The pattern is flexible, some agencies having central policy groups and subcommittees in the different branches. Others again have subcommittees as operating parts of a central operating committee. Other agencies have decentralized the work entirely into the hands of bureau or branch committees. Of the departments and agencies not yet having committees, several are expected to announce formations of committees shortly.

Already 22 examination announcements covering 168 examinations have been published by these committees. Examinations have already been held in 20 cases, and 6 registers of qualified candidates for Federal employment in the respective fields have been established. Eighteen other examination announcements are being currently prepared. These examinations cover subprofessional levels 4 to 8 ($2,168–$3,397), clerical, administrative, and fiscal series 5 through 15 ($2,644–$9,975), and professional series 1 to 8 ($2,644–$9,975).

These boards of expert examiners collaborate with the Civil Service Commission representatives in drafting recruiting standards, preparing examination announcements, constructing the examinations, developing schedules for rating experience and training, obtaining supplemental evidence from applicants as to their qualifications, rating examinations, etc. The members must be of outstanding competence in the scientific, professional, or technical fields in which the examinations are held.

The importance of the new system may be judged by the fact that it places responsibility for setting up examinations and all other steps involved in the selection of qualified candidates in the hands of operating scientists of mature experience with governmental laboratories and the particular branch of science. These men, together with representatives of the Civil Service Commission, who are expert in the legal phases of government employment and Commission regulations, supervise and carry out all of the necessary processes. They can initiate and carry out certain types of recruitment activities; and they can assist in disseminating factual information on government employment of scientific personnel.

The success of the plan will be largely dependent on the stature of the membership on committees. It is gratifying to note that the average grade level and professional standing of this membership indicates a high degree of interest and devotion to the program. Taking half of the committees, including about 100 committee members, as an adequate sample, 96 are permanent civil service employees, the average length of service being 16 years; 33 have Doctor's degrees; 17 have Master's degrees; and 38 have the A.B. degree. In point of administrative responsibility, 11 are either heads or assistant heads of bureaus or agencies; 31 are division chiefs; 17 are assistant division chiefs; and 3 are section chiefs. The remaining 38 are professional employees. Almost half are of the grade P-7 or above. Two rank P-3; 12, P-4; 18, P-5; and 18, P-6. On the basis of these statistics it is clear that the committees are commanding the attention of many of the ablest and most experienced scientific employees.

Although it is too early to hazard an appraisal of the work of these committees or boards, it seems fair to expect that they will contribute greatly to the careful selection of scientists on the Federal payroll and hence contribute substantially to the ultimate soundness of government scientific work. They should also furnish an informal liaison, through the educational and scientific lay contacts of the members, to the scientific public for the interchange of authoritative information on personnel and on government employment in this field of work. This seems important in an age when the Federal role in science is clearly increasing in importance and must necessarily still further increase. (M. H. TRYTTEN, *Director, Office of Scientific Personnel, National Research Council.*)

Make Plans for—

The Electrochemical Society, Inc., annual congress, April 9–12, Louisville, Kentucky.

American Chemical Society, spring meeting, April 14–18, Atlantic City, New Jersey.

Institute of Mathematical Statistics, meeting on stochastic processes and noise, April 24–25, New York City.

National Academy of Sciences, annual meeting, April 28–30, Academy Building, Washington, D. C.

American Medical Association, centennial session, June 9–13, Atlantic City, New Jersey.