It is quite remarkable that, with a time element of too short a duration for the initiation of a reaction, there also seems to be no accumulation factor for many chemical compounds.

Many phenomena which have been attributed to the action of radiation proper represent in reality merely the cumulative effect of rays together with nonspecific, radiation-caused, side reactions. The latter include elevation of temperature, oxidative processes on the surface—and within the target—as well as a multitude of other chemical reactions. In consequence, the suppression of by-effects will illustrate automatically what may be called "the pure radiation principle" and will facilitate the more intimate understanding of the fundamentals involved. The Capacitron carries sufficient intensities into the targets in such short times that most chemical reactions can be eliminated while the effective biological impact is maintained. Therefore, a detailed study from this specific angle seems to be indicated, and for principal reasons an even further shortening of the exposure time to about 10^{-8} second must be considered.

Although a great deal of exploratory and developmental work is yet to be done, there can be no doubt that a process which, among other things, permits preservation in a raw state and causes chemical and biological effects of such a highly differentiated nature, will be found useful in many applications beyond those reported here. An important consideration, for practical purposes, will be whether or not the operating costs of such a device are prohibitive. Detailed estimates show that such expenditures will not materially increase the final price of the treated product, provided that the output of the Capacitron is adapted to the desired purpose.

References

1. Brasch, A., and Lange, F. *Naturwiss.*, 1930, **18**, 16, 765.
2. Brasch, A., Lange, F., and Urban, G. *Naturwiss.*, 1928, **16**, 115; Brasch, A., and Lange, F. *Z. Physik*, 1931, **70**, 10; Goetz, A. *Sci Mon.*, 1932, **34**, 125; Brasch, A., Lange, F., Waly, A., Banks, T. E., Chalmers, T. A., Scillard, L., and Hopwood, F. L. *Nature, Lond.*, 1934, **134**, 880; Brasch, A. *Naturwiss.*, 1933, **21**, 82.
3. Burk, R. E., Thompson, H. E., Weith, A. J., and Williams, T. *Polymerization*, etc. New York: Reinhold, 1937. Pp. 186–210.
4. Burton, M. Radiation chemistry. (Symposium on Nuclear Chemistry, Division of Physical and Inorganic Chemistry.) ACS Meeting, Atlantic City, April 10, 1946.
5. Coolidge, W. D., and Moore, C. N. *Gen. Elec. Rev.*, 1932, **35**, 414.
6. Curtis, H. J. *Chem. Eng. News*, 1946, **24**, 897.
7. Ellis, C., and Wells, A. A. *The chemical action of ultra violet rays.* New York: Reinhold, 1941. Pp. 557, 669.
8. Glocker, R., Kugler, G. A., and Langendorff, A. *Strahlentherapie*, 1934, **51**, 129; Waly, A. Ph.D. Thesis. Univ. Berlin, Germany, 1936.

NEWS *and Notes*

A meeting of the Inter-Society Committee for a National Science Foundation has been called for 10:00 A.M., Sunday, February 23, in Washington at Hotel 2400 by Kirtley F. Mather, who is chairman of the Council Committee arranging for the organization. Since the Boston meeting, at which a resolution calling for this action was adopted, invitations have been extended to a large number of national scientific and educational groups asking for the appointment of delegates to the Washington meeting. The response was immediate, so that some 60 delegates are now receiving instruction from their group.

About People

Wendell M. Stanley, Rockefeller Institute for Medical Research, Princeton, New Jersey, and 1946 Nobel Prize winner in chemistry, addressed the Detroit Section of the American Chemical Society January 15 on the subject of influenza vaccines. Vaccine separated from chick embryonic fluid by centrifuging, Dr. Stanley said, consists almost exclusively of purified virus, while other types, prepared by elution, alternate freezing and thawing, or precipitation with chemicals, include as impurities as much as 80 per cent of chick proteins and other material containing nitrogen. Carl F. Graham, Research Department, Wyandotte Chemicals Corporation, chairman of the Section, presided at the meeting.

William Walter Greulich, professor of anatomy, Stanford University School of Medicine, and director of the Brush Foundation, has returned to the United States after three months in Australia and New Zealand, where he visited universities and medical schools and lectured to chapters of the British Medical Association in all principal cities of the two countries.

Saul B. Arenson has been made professor emeritus of inorganic chemistry at the University of Cincinnati. Since August 1946, he has been convalescing from a heart attack at 1884 Laurel Canyon Boulevard, Los Angeles 46, California.

W. S. Flory, Jr. has been appointed professor of experimental horticulture and vice-director of the Blandy Experimental Farm, University of Virginia. His new work, effective February 1, follows service as horticulturist of the Virginia Agricultural Experiment Station.

Percy Williams Bridgman, 1946 Nobel Prize winner for work in physics, was honored at a dinner given in Boston January 11 by Dean of the Faculty of Arts and Sciences Paul H. Buck, Harvard University. Speakers were I. I. Rabi, Columbia University, who received the Nobel award in physics in 1944; Theodore Lyman, director, Jefferson Physical Laboratory, Harvard; John Clarke Slater, chairman, Physics Department, Massachusetts Institute of Technology; and James B. Conant, president of Harvard. Guests included George R. Minot and William P. Murphy, Harvard Medical School, who won the prize in physiology and medicine in 1934; Manuel S. Vallarta, Mexican physicist and representative on the U. N. Atomic Energy Commission; A. W. Hull, General Electric Company; Harvey N. Davis, president, Stevens Institute of Technology; George A. Campbell, telephone research engineer of Upper Montclair, New Jersey; Gordon F. Hull, Dartmouth College; and Karl K. Darrow, Columbia University.

Sven Wingquist, inventor of the spherical ball bearing and founder of the SKF ball-bearing industry, on December 10 celebrated his 70th birthday by donat-

ing his estate, Remningstorp, in South Sweden, to a foundation for forest research. The estate, comprising about 3,700 acres and valued at $278,000, is heavily forested. Activities will be carried on in collaboration with the Swedish State Forest Research Institute.

Helen Louise Ellis, Wilson College, has joined the research staff of the Smith, Kline & French Laboratories, Philadelphia.

Oskar Baudisch, research director, Saratoga Springs Commission, will address a meeting of the Biochemical Society, University of Stockholm, Sweden, and the Polish Chemical Society and University of Poznań, Poland, in February.

Laurence H. Snyder, chairman, Department of Zoology and Entomology, Ohio State University, will address a joint meeting of Phi Beta Kappa and Sigma Xi at Rutgers University, February 17, on human and medical genetics. He presented lectures on this subject before the Cayuga County Medical Society December 5, at Wells College December 6, and before the Northwestern University chapter of Sigma Xi January 10.

Visitors From Abroad

N. R. Dhar, head, Chemistry Department, University of Allahabad, India, will visit the United States in June and be available to lecture at universities on biochemistry. He has carried on work in physical chemistry in the field of colloidal gels, aging and oxidation processes, and allied subjects. Further information about lectures may be obtained from Thomas S. Gardner, Scientific Department, Hoffmann-La Roche, Inc., Nutley, New Jersey, with whom Prof. Dhar has communicated.

Grants and Awards

The Medal of Merit was presented by the Navy December 27 to Philip McCord Morse, director of Brookhaven National Laboratory, for service as wartime director of the Anti-Submarine Warfare Research Group in the Atlantic. Dr. Morse is on leave as professor of physics from M.I.T.

Clarence S. Ross, chief, Petrology Section, Geological Survey, was awarded the Roebling Medal for achievement in mineral research January 3 by the Mineralogical Society of America at its annual meeting in Chicago. Dr. Ross, who has been on the staff of the Survey since 1917, received the Orton Award for research in ceramic minerals from the American Ceramics Society in 1945.

Walter R. Kirner, director, Chemical-Biological Coordination Center, NRC, Washington, D. C., was recently awarded the Medal of Merit. He was employed by the National Defense Research Committee from 1940 to 1946 and served as chief of the Chemistry Division from 1942 to 1946. During 1943–44 he was also chief, Chemical Research Branch, Technical Division, Office of the Chief of the Chemical Warfare Service.

Bureau of Ordnance Development Awards have recently been received by W. E. Kappauf, Department of Psychology, Princeton University; Franklin V. Taylor, Psychology Section, Naval Research Laboratory; Alston S. Householder, Monsanto Chemical Company, Oak Ridge, Tennessee; Thomas G. Hermans, Department of Psychology, University of Washington, Seattle; and Henry P. Birmingham, Naval Research Laboratory. The awards were made on December 20 in recognition of work on lead-computing gun sights in connection with NDRC Project N-111.

Elmer D. Merrill, Arnold professor of botany, Arnold Arboretum, Harvard University, was awarded the George Robert White Medal of Honor by the Massachusetts Horticultural Society January 8, as the person who "in recent years has done most to advance the interest of horticulture in its broadest sense." Dr. Merrill has also been appointed honorary collaborator, Botanical Garden, Buitenzorg, Java, in appreciation of his work on the flora of Malaysia over a period of 44 years.

M. L. Crossley, director of research, American Cyanamid Company, will receive the 1947 gold medal of the American Institute of Chemists at its annual meeting in May. Foster D. Snell, president of the Institute, stated that the award is in recognition not only of Dr. Crossley's work with dyes and pharmaceuticals, but also his activities in behalf of the profession of chemist. Dr. Crossley has conducted research on the relation of molecular structure to color in organic compounds; on synthesis of dyes; on discovery and industrial development of the sulfa drugs; and on the chemistry of infectious diseases. Among previous recipients of the medal have been Lafayette B. Mendel, Yale University; James B. Conant, Harvard University; Marston T. Bogert, Columbia University; and last year, Robert P. Russell, Standard Oil Development Company.

Franz Weidenreich, American Museum of Natural History, on December 28 was awarded the Viking Fund Medal and prize of $1,000 in physical anthropology. The newly created award, presented at the annual meeting of the American Association of Physical Anthropologists, cited Dr. Weidenreich for his many contributions to paleoanthropology and especially recent studies on fossil man in China and Java.

The Morrison Award of the American Society of Animal Production was granted J. L. Lush, professor of animal breeding, Iowa State College, at the annual meeting of the Society November 30. The award of $1,000, first of five to be made from funds provided by F. B. Morrison, Cornell University, and his wife, Elsie B. Morrison, is given to members of the Society who have done "outstanding recent research of direct importance to livestock production."

Alfred V. Kidder, Harvard archaeologist, has been awarded the Viking Fund Prize and Medal in archaeology for 1946. The prize of $1,000 and a gold medal, provided by the Viking Fund, is awarded annually by the Society for American Archaeology to the person considered to have made the outstanding contribution to archaeology.

Colleges and Universities

Cambridge University, England, has announced that elections will be held this month to the professorship of astrophysics, which will fall vacant in October 1947, on retirement of Prof. F. J. M. Stratton.

Lehigh University will conduct research on thermal and electrical properties of aluminum and its alloys under a grant by the Aluminum Company of America. The study will be under the direction of Charles C. Bidwell, professor of physics.

Northwestern University has just begun a $500,000 three-year research program on communication devices, financed by the Navy and directed by Walter S.

Huxford and Robert J. Cashman, professors of physics, Northwestern Technological Institute. The program is an extension of wartime research which developed a new invisible-ray telephone and new types of photoelectric cells used in the telephone and various secret weapons. The telephone, which transmits the voice on invisible rays of infrared light, was used during the war for short-range, ship-to-ship communication and may find first peacetime application in crowded harbors and airports where radio wave bands are jammed.

The Ohio State University has announced appointment of Alpheus W. Smith, technical counselor and administrator, and Max Astrachen, associate professor, Wright Field Graduate Center. Dr. Smith retired as dean of the Graduate School and chairman of the Department of Physics last year after 37 years service at Ohio State.

The University also appointed Clifford R. Cutright, Claude R. Neiswander, and Ralph B. Neiswander, associate professors of zoology and entomology; Earle R. Caley, associate professor of chemistry; W. P. Judkins, assistant professor of horticulture and forestry; and Robert B. Jacques, assistant professor of electrical engineering.

Approval has been given to creation of a Department of Radiology in the College of Medicine, effective July 1, 1947, as recommended by the faculty council.

Industrial Laboratories

Wm. S. Merrell Company announces the appointment of Frederic E. Shaffer, University of Louisville, to the pharmacology division of its research department.

The Eastman Kodak Company Research Laboratories has had in operation for several months an apparatus for the separation of C^{13} by the chemical exchange reaction developed by H. C. Urey. Operation has reached a point where it is possible for the Laboratories to make the first commercial shipment of C^{13} in the 20–25 per cent concentration range. Initial production is on a small scale, but larger fractionating columns have been installed and will soon be in operation.

The Eastman Kodak Company has agreed to supply essentially its entire initial production to the National Research Council's Committee on Growth.

A tentative price schedule has been established for material produced in the present small-scale apparatus. Prices range from $100 per gram of excess C^{13} in the 3–5 per cent range, to $250 in the 16.1–18.0 per cent range, and $400 at 23.1–26.0 per cent. Initially, the C^{13} will be available as potassium cyanide, although it is expected synthetic organic compounds containing C^{13} will ultimately be available. Among the first of these will be methanol.

The tracer carbon, C^{13}, is an addition to the nitrogen isotope concentrates previously produced in the Eastman Research Laboratories. The N^{15} is regularly available in concentrations of 14, 30, and 60 atom per cent, at prices of $150, $200, and $300 per gram of N^{15}, respectively. Inquiries concerning C^{13} or N^{15} should be addressed to Eastman Kodak Company, Research Laboratory, Dept. WOK, Kodak Park Works, Rochester 4, New York.

Meetings

The Chemical Society, London, now arranging for the celebration of its centenary in London in July 1947, is planning an exhibition in the Science Museum illustrating the development of British chemistry during the past 100 years.

The American Society of Mechanical Engineers has announced the following schedule of 1947 meetings: Spring Meeting, Tulsa, Oklahoma, March 2–5; Oil and Gas Power 19th National Conference, Cleveland, Ohio, May 21–24; Aviation Meeting, Los Angeles, California, May 26–29; Wood Industries National Conference, Madison, Wisconsin, June 12–13; Semiannual Meeting, Chicago, Illinois, June 16–19; Applied Mechanics 13th National Conference, June, time and place not set; Fall Meeting, Salt Lake City, Utah, September 1–4; Industrial Instruments and Regulators Division, Chicago, time not set; Petroleum Mechanical Engineering Conference, Houston, Texas, October 6–8; Fuels Division Meeting with Coal Division, American Institute of Mining and Metallurgical Engineers, Cincinnati, Ohio, time not set; Annual Meeting, New York City or Atlantic City, New Jersey, December 2–5.

The 11th International Congress of Pure and Applied Chemistry will be held in London July 17–24 at the time of centenary celebrations of the Chemical Society in London. At the 10th International Congress in Rome, 1938, the 11th Congress was scheduled for London, 1941, with centenary celebrations of the Chemical Society, but when war broke out, both events were postponed. Centenary meetings will be July 15–17, immediately before the Congress.

The Eastern Association of Electroencephalographers will hold a three-day meeting at the Montreal Neurological Institute, 3801 University Street, Montreal, February 21–23.

The 17th International Physiological Congress, originally scheduled for 1941, will be held at Oxford, England, July 21–25, 1947. Due to a shortage of living accommodations, the British Committee has issued invitations in the first instance only to physiologists who are themselves members of the physiological societies of their own countries, a letter from E. G. T. Liddell, of Oxford, states. Nonetheless, the Congress Committee has authorized the American Physiological Society to accept an additional 500 requests for invitations, according to Wallace O. Fenn, president of the Society. Applications from members will be accepted in order of their receipt and will be given priority over applications from nonmembers. In the case of nonmembers, priority will be given to the physiological qualifications and interests of applicants. Persons who wish to attend may communicate with the secretary of the Society, Maurice B. Visscher, University of Minnesota, Minneapolis, prior to February 28.

Elections

The American Association of Physical Anthropologists, meeting in Chicago December 28, re-elected Wilton M. Krogman, University of Chicago, president. The Association also elected Gabriel W. Lasker, Wayne University, secretary-treasurer; Carleton S. Coon, Harvard University, to the executive committee; and Joseph B. Birdsell, Harvard University, an assistant editor.

The American Society of Electroencephalography, meeting for the first time in Boston in December 1946, to "supervise and raise the standards of laboratories, workers, and publications

in this field," elected the following officers: Herbert Jasper and Frederick A. Gibbs, American Physiological Society, president and vice-president, respectively; Robert S. Schwab, American Psychiatric Association, secretary; and Mary A. B. Brazier, treasurer. The council of seven members, which formed the new society, consisted of Robert Aird and Charles Aring, American Neurological Association, Charles Stephenson, American Psychiatric Association, and E. J. Baldes, American Medical Association, in addition to Drs. Jasper, Gibbs, and Schwab.

Recent Deaths

Henry G. Avers, 61, a chief mathematician with the U. S. Coast and Geodetic Survey since 1924, died at his home in Washington January 19.

Clarence Martin Jackson, 71, head, Department of Anatomy, University of Minnesota, 1913–41, died in Minneapolis January 17.

The Tissue Culture Commission, a new informal organization of investigators who use the techniques of tissue culture, at its first meeting, held recently, elected the following temporary committee: Keith R. Porter, chairman; Margaret R. Murray, secretary; George O. Gey, Duncan C. Hetherington, and Charles M. Pomerat, executive members; Honor B. Fell, European member-at-large.

Initial aims of the Commission are to examine the possibility of preparing chicken plasma, placental cord serum, horse serum, serum ultrafiltrate, buffered saline solutions, and embryo extract centrally for distribution at moderate cost, and to prepare a bibliography of the published research in tissue culture.

Anyone using the tissue culture method is eligible for membership in the Commission, and inquiries may be addressed to Margaret R. Murray, College of Physicians and Surgeons, New York 32, New York.

The National Registry of Rare Chemicals, Armour Research Foundation, 35 West 33rd Street, Chicago, lists the following wanted chemicals: arterenol; nucleoproteins; β-(m-hydroxyphenyl)-ethylamine; trimethyl bismuth; trimethyl arsenic; trimethyl antimony; quinuclidine; 2-pyridine aldehyde; 3-pyridine aldehyde; 2,3,4-trimethylbenzaldehyde; 1-phenylalanine; N-piperidinoacetaldehyde; thebaine; p-benzylphenol; divinyl sulfide; divinyl disulfide; alkannin; piperidinomethyl-1,4-benzodioxan (933F); 2-diethylaminoethyl-1,4-benzodioxan (883F); 2-phenylbenzopyrone; and di-o-tolylzinc.

"Prevention of Deterioration Abstracts," including journal articles, patents, specifications, unpublished reports by Army, Navy, and other governmental groups, and unpublished British, Australian, and Canadian reports, are now available on a yearly subscription basis. The price, including a binder and index guides, will be $35 for the fiscal year July 1–June 30, back issues being supplied since the Abstracts started in April 1946. There will be about 1,500 pages of Abstracts a year, in loose-leaf form so they may be arranged as desired. All pages under any one heading will be numbered consecutively.

Abstracts are set up under the following headings: electrical and electronic equipment; finished assemblies; fungicides; lacquers, paints, and varnishes; leather; lubricants; metals; microorganisms; optical instruments; packaging; paper; plastics, resins, rubbers, and waxes; storage; textiles; and wood. Subscriptions may be obtained from Prevention of Deterioration Center, Room 204, 2101 Constitution Avenue, Washington, D. C.

The British Glaciological Society, founded in 1945, has issued in 1947 the first number of *The Journal of Glaciology,* designed to publish not only scientific transactions of the Society, but discussions of problems relating to snow and ice in all modes of occurrence. The journal is expected to fill a need in view of growing interest in polar and circumpolar regions and improved aerial navigation and oversnow travel, and especially because *Zeitschrift für Gletscherkunde,* in past years the only glaciological magazine, was discontinued during the war and has not yet been revived.

The editorial committee is headed by Gerald Seligman, under whose leadership the Society was originally organized in 1936 as the Association for the Study of Snow and Ice. Offices are at the Royal Geographical Society, Kensington Gore, London, S. W. 7.

Present officers of the British Glaciological Society are Gerald Seligman, president; J. M. Wordie, vice-president; and an executive committee of nine members.

An International Conference on High Polymers was held at the University in Strasbourg the week of November 25, first of a number of conferences on special subjects to be held in France, arranged by the Centre National de Recherche Scientifique and under sponsorship of the Rockefeller Foundation. The papers, which were restricted to the subject of molecular properties of large molecules, will appear in an early issue of the *Journal de Chimie Physique.* Members of the conference were generally agreed on desirability of a permanent international organization for surveying the study of macromolecules and an international journal containing articles of general importance in more than one language. Interested people are asked to write M. L. Huggins, Kodak Research Laboratories, Rochester, New York, or Charles Sadron, Institut de Physique, 3, rue de l'Université, Strasbourg.

German physicists of the British zone of occupation held meetings at Göttingen October 4–6 and formed a German Physical Society for the British Zone, with Max von Laue, Göttingen, chairman, and a board of five members each for the sections Hannover-Braunschweig and Rheinland. All former members of the Deutsche Physikalische Gesellschaft now resident in the zone will automatically be accepted as members of the new organization and others may apply for membership. About 300 physicists were present and 17 papers read. A few visitors from the American and Soviet zones of occupation attended as well as representatives of the British Control Commission and physicists from Britain. Statutes and bylaws of the society are still subject to approval by the British Military Government.

Japanese physicians are in need of American scientific books, according to Lt. Col. Warner F. Bowers, surgical consultant for the Pacific theater, who visits all American hospitals in Japan as well as Japanese hospitals connected with the Imperial Japanese University Medical Schools. Since the Japanese language does not contain technical terms used in clinical surgery, German books have been used and German records kept. Although

there seems to be a desire to change terminology and records to English, most scientists are not sufficiently familiar with English to make the change. Hence, Lt. Col. Bowers avers, textbooks in English dealing with surgery and the basic sciences are needed, and since Japanese doctors cannot order from America, he suggests donation of books. Packages up to 11 pounds can be sent direct and may be mailed to Kikuo Ohtsuki or Kentary Shimizu, Department of Surgery, Tokyo Imperial University Medical School, Tokyo, Japan.

U. S. relations with scientific laboratories in other countries have been substantially renewed since the end of the war, according to the December *Technical News Bulletin*, of the National Bureau of Standards.

During the summer of 1946, 12 members of the Bureau visited other nations, 18 Bureau engineers were and still are at various stations in the Pacific, and another engineer was recalled by the Army to aid in organizing a Standards Bureau in Korea.

In the six months, May 1–November 1, 176 representatives of 35 countries visited the Bureau. Included were 10 directors of research institutions with programs as broad as the Bureau's and 9 directors of specialized research institutions, as well as research engineers, university professors, government officials, industrialists, and laboratory workers.

Bureau scientists report that European science is recovering rapidly from the war, national encouragement of science is widely discussed, military restrictions on interchange are being removed, and there seems to be a sincere desire to promote international good will on the part of scientists.

The Royal Society, London, has elected C. J. Mackenzie, president, National Research Council of Canada, a Fellow of the Society under the statute providing for election of persons who "have rendered conspicuous service to the cause of science or are such that their election would be of signal benefit to the Society."

Two Royal Medals for 1946 were awarded by the Society to Sir Lawrence Bragg, O.B.E., F.R.S., for researches in the sciences of X-ray structure analysis and X-ray spectroscopy, and C. D. Darlington, F.R.S., for researches in cytology and genetics.

The following awards of medals were also made: the Copley Medal to E. D. Adrian, O.M., F.R.S., for researches on the fundamental nature of nervous activity, and recently on localization of certain nervous functions; the Rumford Medal to Sir Alfred Egerton, F.R.S., for his part in the application of modern physical chemistry to many technological problems; the Davy Medal to C. K. Ingold, F.R.S., for work in applying physical methods to problems in organic chemistry; the Darwin Medal to Sir D'Arcy Thompson, C.B., F.R.S., for contributions to the development of biology; the Sylvester Medal to G. N. Watson, F.R.S., for contributions to pure mathematics in the field of mathematical analysis and in particular for work on asymptotic expansion and general transforms; and the Hughes Medal to J. T. Randall, F.R.S., for researches into fluorescent materials and production of high-frequency electromagnetic radiation.

The National Science Teachers Association's Year Book for 1946, *Time for Science Instruction*, recently appeared under the editorship of Dwight E. Sollberger, State Teachers College, Indiana, Pennsylvania. Consisting of 13 articles, the Year Book, is chiefly concerned with 1) the tendency to give science less time in weekly schedules of students, and 2) need for more time than mere textbook instruction due to handling equipment, experimentation, and field trips. Copies may be obtained for $.50 from National Science Teachers Association, 1201 16th Street, N.W., Washington, D. C.

The National Geographic Society presented Matthew W. Stirling and Mrs. Stirling at a general session on Saturday afternoon, December 28, at the AAAS Boston meetings. The program consisted of a report in nontechnical language, illustrated by colored motion pictures, of eight expeditions made by the Stirlings under the auspices of the National Geographic Society and the Smithsonian Institution. Dr. and Mrs. Stirling were introduced to a capacity audience in Symphony Hall by Charles F. Kettering, president of AAAS for 1946, and life trustee of the National Geographic Society.

Optical and mechanical work on the 200-inch telescope on Palomar Mountain has been resumed since the war, and it is expected to be in operation in the summer of 1947, according to the 1946 report of the president, Carnegie Institution of Washington.

The California Institute of Technology and the Carnegie Institution of Washington have approved plans for unitary operation of the scientific program of the Observatory on Palomar Mountain and Mount Wilson Observatory by graduate training at the Institute under an astrophysics staff of Institution as well as Institute staff members. A committee, headed by E. P. Hubble, Mount Wilson Observatory, has been appointed to formulate a broad and long-term program of research for the combined observatories.

Walter S. Adams, who retired January 1, 1946, after more than 40 years service at Mount Wilson Observatory, has continued with the Observatory as research associate and has been active in arrangements preliminary to joint operation of the two observatories, announced soon after his retirement.

Activities of the Psychiatric Personnel Placement Service, operated jointly for the past year by the American Psychiatric Association and the National Committee for Mental Hygiene, have been transferred to the latter organization. Applications from physicians seeking placement in psychiatry should be directed to the National Committee for Mental Hygiene, 1790 Broadway, New York 19, New York, which has a complete file of positions and training opportunities in psychiatry, obtained through nationwide surveys of general and state hospitals, private mental hospitals, community and mental hygiene clinics, medical schools, and foundations.

Commonwealth Fund

By far the greater part of the $2,121,917 appropriated by The Commonwealth Fund during the year ended September 30, 1946 went to promote and maintain health, the Fund's 1946 annual report points out. Distribution of funds was as follows: Division of Education, $149,819; Division of Rural Hospitals, $581,567; and under special grants, Division of Public Health, $278,194; Mental Health, $294,040; Medical Research, $447,391; Medical Education, $224,850; Miscellaneous, $76,100.

While divisions are kept separate for

budgetary convenience, the report states, the most interesting work of the year was done in areas where they overlap. Nothing in the Fund's year, the report goes on, was more rewarding than its collaboration with several young psychiatrists in the pilot course in psychotherapy for general physicians offered at the University of Minnesota last April. The course, which spearheaded the Fund's mental hygiene program, "was an attempt, on a small scale to get the most pertinent parts of basic psychiatric thinking into general medicine, which with this reinforcement may become the center around which medicine and its specialties are reintegrated."

Lectures dealt with the personality, its development, and its disorders; interplay of the emotions and physical function; physician-patient relationship; and elements of psychotherapy, the report shows. An experiment in adapting similar instruction to postgraduate extension programs is being made with the Fund's help in Tennessee.

Commonwealth Fund Fellowships were re-established last year, and in the fall 20 British students arrived in the United States for study at various universities, 13 of the 20 being in the sciences. Between 1925 and 1941, when the fellowships were suspended, 411 Fellows visited this country as guests of the Fund for advanced study, it was shown, but with resumption of British fellowships the wartime program of fellowship aid to physicians and public health workers from the Latin-American countries was terminated. For the year 1946–47 only four appointments were made.

Seven of the eight new books published by the Fund in 1946 were studies sponsored by the Committee on Medicine and the Changing Order of the New York Academy of Medicine, designed "to provide the framework for an understanding of the current medical situation and its trends," the report states. In addition to these books, a handbook and two pamphlets for free distribution appeared during the year.

NRC News

A Chemical-Biological Coordination Center with headquarters in Washington, D. C., has been organized, funds for its operation being provided by the War Department, Navy Department, and American Cancer Society.

Primary functions of this Center are to:

(1) Collect and assemble information concerning the relation of chemical structure to biological activity. In addition to the mass of information scattered throughout the literature a great deal of work on this subject was carried out during the war, the results of which are still unpublished and should be organized so as to be available to those interested. To facilitate handling these data the Center has been actively developing chemical and biological coding systems so that chemical and biological data can be placed on punch cards and sorted by means of machines. In this way a vast number of facts concerning the chemical structure, physical characteristics, and biological actions of each compound can be quickly ascertained. This constitutes an important advance in the recording and utilization of scientific information.

(2) Sponsor the preliminary testing or "screening" of compounds on a variety of plants and animals to determine biological effects of the compounds. Such tests should serve to uncover leads for further research which may result in the practical use of the compounds.

The results of these tests will also be incorporated into the files of the Center. These files, including information concerning the relation of chemical structure and biological activity and results of the screening tests, will be available not only to sponsoring agencies but to scientists generally upon request.

A preliminary survey indicates that both old and newly synthesized compounds will be received in adequate numbers from university and industrial laboratories.

For the immediate future particular attention will be directed toward disclosure of compounds that may be useful for control of insects and rodents, diseases of animals, as well as plants, caused by microbiological agents, and also for the control of malignancies. The following agencies are cooperating in the screening program: Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture; Chemical Corps—Biological Division; Chemical Corps—Medical Division; Fish and Wildlife Service, U. S. Department of Interior; National Cancer Institute, U. S. Public Health Service; National Institute of Health, U. S. Public Health Service; Prevention of Deterioration Center, National Research Council; and Sloan-Kettering Institute for Cancer Research, American Cancer Society.

W. R. Kirner, formerly chief of Division 9, NDRC, is director of the Center. An advisory committee, under chairmanship of M. C. Winternitz, consists of the following scientists representing the fields indicated: Roger Adams, organic chemistry; W. A. Noyes, physical chemistry; J. S. Fruton, biochemistry; J. H. Mueller, microbiology; R. B. Friend, entomology; Remington Kellogg, mammalogy; McKeen Cattell, physiology and pharmacology; M. C. Winternitz, pathology; W. T. Longcope, medicine; Harry Eagle, chemotherapy; C. P. Rhoads, malignancy; Abel Wolman, sanitary engineering; R. A. Kelser, veterinary medicine; and R. F. Griggs, plant ecology.

A Pacific Science Board, recently appointed by the Chairman of the Council, is composed of the following scientists: Knowles A. Ryerson, College of Agriculture, University of California, chairman; Beno Gutenberg, California Institute of Technology; Ross G. Harrison, Yale University; Remington Kellogg, U. S. National Museum; Elmer D. Merrill, Harvard University; George P. Murdock, Yale University; Robert Cushman Murphy, American Museum of Natural History; Thomas M. Rivers, Rockefeller Institute for Medical Research; Harald U. Sverdrup, University of California; and Harold J. Coolidge, Harvard University, executive secretary (ex officio).

This Board, which maintains an office in the NRC building, Washington, D. C., has been established to aid scientists of America who wish to engage in scientific investigations for which there is a need in the Pacific area, advise governmental and other agencies on scientific matters pertaining to the Pacific, and further international cooperation in the field of Pacific science.

Applications to the Committee for Research in Problems of Sex for financial aid during the year beginning July 1, for work on fundamental problems of sex and reproduction, should be received by Dr. Robert M. Yerkes, Yale School of Medicine, New Haven 11, Connecticut, not later than April 1. Although hormonal investigations continue to command the interest and support of the Committee, in accordance with current policy preference will ordinarily be given to proposals for the investigation of neurological, psychobiological, and behavioral problems of sex and reproduction.