the great medical teaching and research centers of Europe. Even were these centers still operating, access to them by North and South Americans alike is unattainable. As a result, an ever-increasing rapprochement is developing between the scientists of the Western Hemisphere. For the first time, perhaps, many of us are becoming acquainted, exchanging ideas, knowledge and culture.

To further these ends the Bureau of Clinical Information of the academy has made provisions to welcome medical visitors from the American countries and to extend to them the facilities it possesses for the pursuit of knowledge. A Spanish physician who can converse in Spanish, Portuguese and English will be available to the medical visitors from the Republics of Central and South America.

This bureau provides information regarding opportunities for post-graduate medical study in New York or other medical centers of the United States, and particularly publishes a *Daily Bulletin* of clinics, meetings, lectures, conferences, hospital rounds and other interesting medical activities in New York which are freely open to medical visitors.

At the academy itself, many lectures and conferences are held to which visiting physicians are welcomed. The library is one of the largest of its kind in the United States. Its files of American and foreign periodicals are very complete. A bibliographic and photostat service is available for visitors at the usual library rates. The library itself is open to the public every week day from 9 to 5 o'clock.

THE SHORTAGE OF TECHNICALLY TRAINED CHEMISTS

THE American Chemical Society has made public a survey of one hundred and eighteen colleges and twenty-nine chemical corporations and has issued a statement to the effect that present and impending shortages of technically trained men in the army of production threaten to hamper the war effort of the nation.

The survey was conducted by the Defense Committee of the society, consisting of Professor Roger Adams, head of the department of chemistry at the University of Illinois, *chairman;* Dr. James B. Conant, president of Harvard University; Professor Warren K. Lewis, Massachusetts Institute of Technology; Dr. Thomas Midgley, Jr., of Worthington, Ohio, vice-president of the Ethyl Gasoline Corporation; Dr. Edward R. Weidlein, director of the Mellon Institute of Industrial Research, Pittsburgh; Dr. Robert E. Wilson, president of Pan American Petroleum and Transport Company, New York; and Dr. Charles L. Parsons, of Washington, D. C., secretary of the society.

It is reported by the committee that many chemical companies complained that production is falling off, and that future production is jeopardized by the withdrawal of trained chemists and chemical engineers from industry. An "appalling shortage" of trained individuals in chemistry and chemical engineering is shown by the colleges, which reported almost without exception that chemical or chemical engineering alumni are all employed and that current demands can not be supplied. Harvard University disclosed that the present shortage of trained chemists is the most serious in its experience.

That essential industry needs in 1942 from 2,000 to 3,000 more chemists and chemical engineers than will be graduated or are otherwise available, and "no one knows whence they are to come," was the situation brought out by a canvass of corporations representing a cross-section of the chemical industry. It is pointed out that "magnesium, aluminum, transparent plastics, rubber, explosives, medicinals and innumerable minor but essential supplies needed by the Army, Navy, Signal, Sanitary and Medical Corps, can be produced only under the guidance of trained engineering and chemical personnel."

The official statement, which is signed by Dr. Charles L. Parsons, secretary of the society, reads:

> The Army and Navy are deeply concerned. Investigations made by this organization prove that trained personnel to produce this material is lacking. Not only the finished product but also the raw material going into smokeless powder, rubber, etc., can be produced only under the active control of experienced chemists and chemical engineers. There is far greater immediate danger to the ultimate outcome of the war from shortages of such man power than there is from any lack of officers and men in the combat force. Without production of essential materials the war will be lost, since the combat forces can not exist without material.

SCIENTIFIC NOTES AND NEWS

THE John Scott Medals and Premiums of the City of Philadelphia were presented on February 13 at the midwinter meeting of the American Philosophical Society to Major Edwin H. Armstrong, professor of electrical engineering at Columbia University, for his work in frequency modulation in radio and to Dr. Robert R. Williams, chemical director of the Bell Telephone Laboratories, for his work on thiamin (vitamin B_1).

THE Edison Medal of the American Institute of Electrical Engineers was presented at the annual meeting to Dr. J. B. Whitehead, professor of electrical

engineering at the Johns Hopkins University, and the Alfred Noble Prize for 1940–41 was presented to Robert F. Hays, Jr., of the research laboratories of the Sperry Gyroscope Company, for his paper entitled "Development of the Glow Switch."

THE fiftieth anniversary of the founding of the laboratory of psychology at Columbia University was celebrated at a dinner on February 12. Dr. J. McKeen Cattell, who established the laboratory, was in 1891 called from the University of Pennsylvania, where the first professorship of psychology at any university was held by him. Professor Albert T. Poffenberger presided and addresses were made by President Nicholas Murray Butler, Professor Edward L. Thorndike, Professor Robert S. Woodworth and Dr. Cattell.

AT a special meeting of the Mount Sinai Hospital, a volume was presented to Dr. Bernard Sutro Oppenheimer, in commemoration of his service to the hospital for thirty-seven years. The volume contains 106 papers, filling 869 pages on medical subjects written by specialists as a tribute to his contribution to the study of the heart and circulatory system during his period of service at Mount Sinai.

THE American Social Hygiene Association presented at a luncheon of the society on February 1 an honorary life membership to John D. Rockefeller, Jr., "for outstanding service to the social hygiene movement."

AT the Washington meeting of the Gorgas Memorial Institute of Tropical and Preventive Medicine, Inc., Colonel Joseph F. Siler, of Washington, D. C., was elected president. Other officers elected were: Dr. Bowman C. Crowell, Chicago, *vice-president;* Dr. Merritte W. Ireland, Washington, *secretary,* and A. M. Nevius, Washington, *treasurer.* Dr. Herbert C. Clark is director of the Gorgas Memorial Laboratory in Panama.

MEMBERS of the Institute of Food Technologists, residing in the New York metropolitan area, have organized a local chapter under the name of New York Society of Food Technologists. The officers are: *chairman,* J. H. Shrader; *vice-chairman,* D. K. Maveety; *secretary,* G. L. Montgomery; *treasurer,* R. F. Leight. The association will meet on the first Friday of March, May, October and December, at dinner sessions at the Faculty Club of New York University.

DR. BRADLEY M. DAVIS, professor of botany at the University of Michigan, retires this month with the title emeritus. He will continue to live in Ann Arbor.

DR. MAURICE H. SEEVERS, associate professor of pharmacology at the Medical School of the University of Wisconsin, has been appointed professor of pharmacology and chairman of the department at the Medical School of the University of Michigan.

JOSEPH MARIN, professor of civil engineering at the Illinois Institute of Technology, Chicago, has been appointed professor of engineering mechanics at the Pennsylvania State College. The appointment became effective on February 1.

DR. LOWELL J. REED, professor of biostatistics and dean of the Johns Hopkins University School of Hygiene and Public Health, has been appointed chairman of a national commission on vital records which has been established at the request of the Association of State Health Executives and the American Association of Registration Executives as a special committee of the Health and Medical Committee of the Office of Defense Health and Welfare Services.

HERBERT G. DEIGNAN has been advanced to the position of associate curator in the Division of Birds of the United States National Museum. Dr. David H. Johnson, who has been associated with the Museum of Vertebrate Zoology at the University of California as graduate student and assistant, has been appointed assistant curator in the Division of Mammals.

DR. JOHANNES S. BUCK has resigned his position with Burroughs Wellcome and Company, Tuckahoe, N. Y., to become associate director of the Research Laboratory of the Winthrop Chemical Company, at Rensselaer, N. Y.

ALAN MORRIS, chief metallurgist of the Bridgeport Brass Company, Connecticut, has been appointed director of research.

DR. CHARLES E. OLMSTED, of the department of botany of the University of Chicago, has been made botanical editor of *Ecology.* He succeeds Professor Francis Ramaley, of the University of Colorado. Professor Thomas Park, of the Hull Zoological Laboratory of the University of Chicago, remains editor for zoology.

DR. WILLIAM BEEBE, of the New York Zoological Society, and his associates have sailed for Venezuela. They plan to make a six-months study of conditions in the jungle.

DR. STANHOPE BAYNE-JONES, professor of bacteriology, formerly dean of the Yale School of Medicine, a Lieutenant Colonel in the Reserve Corps, has been called to active duty and assigned to the office of the Surgeon General of the U. S. Army in the Division of Preventive Medicine and Epidemiology. On leave of absence, he will continue as director of the Jane Coffin Childs Memorial Fund for Medical Research, which was established at Yale in 1937 and is primar-

ily concerned with research in cancer. Dr. Ralph G. Meader, assistant professor of anatomy, has been appointed assistant to the director of the fund and will be in charge of the office during the absence of Dr. Bayne-Jones.

THE Board of Pharmacy of the State of New Jersey, with the approval of Governor Edison, has complied with the request of the Civilian Supply Division of the War Production Board to release Dr. Robert P. Fischelis, secretary and chief chemist of the New Jersey Board of Pharmacy and member of the New Jersey State Board of Health, for part-time service as chief of the Section of Medical and Health Supplies of the Civilian Supply Division of the War Production Board. Dr. Fischelis will organize a staff of specialists and consultants in the field of hospital, medical and drug supplies at the Washington office of the War Production Board.

THE president of the Western Society of Soil Science, Dr. Lawrence C. Wheeting, of the State College of Washington, was called to active duty with the United States Army on February 11. Those planning to present papers at the June meeting of the society, which will be held in connection with the meetings of the American Association for the Advancement of Science, Western Division, at Salt Lake City, are requested to communicate with the vice-president, Dr. T. L. Martin, Brigham Young University, Provo, Utah; or with Dr. W. P. Martin, secretary of the University of Arizona, Tucson.

DR. ROGER ADAMS, professor of chemistry, University of Illinois, delivered the fifth Harvey Society Lecture of the current series at the New York Academy of Medicine on February 19. Dr. Adams spoke on "Marijuana."

DR. HARDY CROSS, chairman of the department of civil engineering of Yale University, delivered three addresses at Iowa State College on February 16 and 17. The titles will be "The Column Analogy and Moment Distribution in Relationship to Structural Engineering," "What is Civil Engineering?" and "Epistemology of Engineering." Sponsors for the lectures are, respectively, the Research Council of the college, the Iowa Section of the American Society of Civil Engineers and the chapter of Sigma Xi.

DR. MAURICE C. PINCOFFS, professor of medicine at the School of Medicine and College of Physicians and Surgeons of the University of Maryland, delivered the Henry Sewall Memorial Lecture on February 3 during the annual meeting of the Medical Society of the City and County of Denver. His subject was "Epidural Abscess."

THE Section of Physics and Chemistry of the New York Academy of Sciences will hold on February 27 and 28, at the American Museum of Natural History, a conference on "Physics of the Solid State."

The Journal of Animal Science has been established by the American Society of Animal Production. It will be issued quarterly (February, May, August and November). The journal replaces the Annual Proceedings which have been issued by the society for the past thirty-three years. It will be edited by a board which represents the following branches of work in animal husbandry: Genetics, nutrition, physiology, general livestock, meats, wool, dairy cattle and extension. Ralph W. Phillips is chairman. The business manager of the journal is Dr. A. D. Weber, Kansas State College, Manhattan, Kansas.

THE University of Michigan Extension Service and the Engineering Society of Detroit dedicated on January 28 a new building in the city of Detroit, to be used jointly by the two institutions and to be known as the Rackham Educational Memorial. Funds for the building, which was erected at a cost of $2,000,000, were given to the university and to the engineering society by the Horace H. Rackham and Mary A. Rackham Fund and Mary A. Rackham.

PLANS for the erection of a new radio tube manufacturing plant at Manheim Township, Lancaster, Pa., have been announced by the RCA Manufacturing Company. A tract of land from the Frank McGrann properties adjacent to the Pennsylvania Railroad main line has been purchased by the company. The work, which will be concerned with special purpose radio and electronic tubes, is being undertaken in cooperation with the U. S. Navy. Ground for the main building, which will occupy 326,000 square feet of space, will be broken early in March, and it is expected that the building will be completed by about September 1.

A REPOSITORY for charts and important records of the U. S. Coast and Geodetic Survey is being established as a war-time precautionary measure. The exact location of the repository is not disclosed, but it is understood to be somewhere in the Middle West. An official of the survey was recently detailed to complete arrangements. Discussing this step to protect vitally important nautical and aeronautical charts and other records, Rear Admiral L. O. Colbert, director of the survey, said: "A black and white copy of each of the more than 1,000 nautical and aeronautical charts published by the survey will be sent to the repository. This will enable reproduction by photographic methods in the event that the plates from which they are now printed in the Washington office are lost or damaged. Microfilm copies of valuable seismological records are also being sent to the re-

pository and it is likely that other material of importance will follow."

A SPECIAL fund has been placed in the charge of the Committee on Scientific Research of the American Medical Association to support cardiologic research by young physicians in medical practice. Inquiries may be addressed to the committee, 535 North Dearborn Street, Chicago.

A GRANT of $10,000 has been made by the Carnegie Corporation of New York, in support of the research program of the Clinic of Child Development at the School of Medicine of Yale University. The clinic, which was founded in 1911 by Dr. Arnold Gesell, its present director, is investigating the mental growth of normal infants and devising clinical methods for the early diagnosis of developmental defects and deviations.

A GIFT of £2,000 from the American College of Surgeons has been received by the Royal College of Surgeons of England to help towards its restoration. The gift was offered immediately after the damage by enemy action was described at the recent congress of the American College by Surgeon Rear-Admiral Gordon-Taylor, who attended the congress as the representative of the Royal Navy and the Royal College of Surgeons. The American College has also set aside an additional sum to cover the cost of an appeal to the surgeons of the United States for contributions to a fund to assist still further in the restoration of the English college.

DISCUSSION

A TWELVE-MONTH COLLEGE YEAR: AN ALL-OUT PROGRAM

AFTER World War I, the author published an article, "A Twelve-Month College Year,"[1] in the interest of intensive instruction and the promotion of economy. It is now more important than ever that we follow these principles.

ECONOMIES. UTILITY OF EQUIPMENT AND TIME

We have an enormous investment in schools, colleges and universities, many of which are utilized only seventy-five per cent. of the year. The business world considers efficiency and economy important. Why not use educational facilities the year 'round and operate during the summer months when light and fuel costs are at a minimum?

Some may think that the cost of such a plan would be prohibitive. With present limited endowment incomes and economic resources in education, institutions of higher learning may not be able to operate the entire year. However, with less time loss in education, industry might be so impressed with the service rendered by educational institutions as materially to increase its financial assistance. State legislatures might increase appropriations, and the Federal Government might partially subsidize higher education.

EARLIER EARNING POWER

With a quarter system (four terms of twelve weeks each) students might enter colleges and universities on October 1, January 1, April 1 and July 1. October 1 seems to be the traditional opening date for the college year. Certainly June graduates of high schools would not have to wait until the fall to enter an institution of higher learning. If the quarter system does not appeal, three trimesters of sixteen weeks each can be scheduled. In any event, there are four weeks for vacations out of the fifty-two and these could be distributed in various ways.

Students, instead of losing time during long vacations now in vogue, could obtain a bachelor's degree in twelve quarters or in eight trimesters. What this means in the present emergency has already been stressed by government and by educators. Most college students could obtain their degrees before they are twenty-one. Whether graduates are to serve in industry or are to enter military service, intensive training makes them available at least one year earlier than the traditional system.

STUDENT FINANCES

Not all students could afford to attend college twelve months in a year. Many of them work during summer months to earn enough for tuition. This difficulty could be overcome in a number of ways: (1) With the repetition of courses each quarter or trimester or in alternate quarters or trimesters students who must work to obtain an education could remain out of college for a period during which courses which they have just completed are repeated. Having obtained funds they might take up where they left off. Students could go out at various times of the year and not be dependent on a summer period during which there is a dearth of work and a superabundance of student labor. (2) Establishing a cooperative system would not only help students to finance their education, but it would furnish a regular supply of trained workers for industry and for the nation. Assuming that each undergraduate course is offered each quarter or each trimester, students could be sent out in relays to obtain practical experience in industry, in teaching and in government service. With a definite number

[1] *School and Society*, 12: 291, 80–82, July 24, 1920.