and that of the Bureau of Standards indicate a difference in judgment as to the conclusiveness of limited laboratory tests. It is not unusual for objective scientific tests to be subject to different interpretations or for differences of opinion to occur in good faith."

A more direct blow against Ritchie was in store, however, from the Committee on Battery Additives of the National Academy of Sciences, which was appointed to study the controversy at the suggestion of Secretary Weeks. It stated simply that "We conclude that the relevant data now available to us regarding the effects of AD-X2 are adequate to support the position of the National Bureau of Standards that the material is without merit." This finding quickly revived the prestige of the bureau and AD-X2's fortunes thereafter failed to rise again, despite a favorable report by the Senate Small Business Committee.

Astin, in the course of his testimony, threw some light on the intriguing question of why the customers found merit in AD-X2 while the scientists did not.

"There are a number of explanations," he said, "and I am not an expert in analyzing what makes people write testimonial letters. However, there are numerous examples where people believe they are getting beneficial results from some product. Hair restorers, I think, are a very common example. It is easy to get people to believe that they get beneficial action from hair restorers, but I know of no instance where it has been found useful."

AD-X2 Process

He also pointed out that the AD-X2 treatment involved significantly more than the mere addition of powder to the battery. The powder was accompanied by a long, low-current recharge. which would normally revive most played out batteries. In addition, he pointed out, many batteries written off as "dead" have considerable life left in them, and, matching some of the spectacular claims offered by Ritchie, he reported that "some of our staff members . . . bought a lot of secondhand batteries that had been turned in as being at the end of their useful life, and did nothing to them, but just put them in their cars—they did not even charge them-and the first failure occurred after six months, according to my recollection."

Ritchie's prospects seemed to brighten a bit in 1956 when the Federal Trade Commission, after 2 years of hearings, concluded that when the scientific conclusions were balanced against the numerous reports of customer satisfaction, Ritchie could not be burdened with a charge of misleading advertising. The basis of the FTC conclusion was that if the customers felt they were getting what Ritchie claimed to give them, they were not being deceived. This decision would seem to open the way to a thriving placebo industry.

Ritchie subsequently brought suit against the Government for \$2.4 million, claiming that the findings of the National Bureau of Standards had ruined his business. He dropped the suit earlier this month. In a statement noteworthy for its dispassionate tone, Astin announced that "I am pleased to report" the end of the case. He went on to state that "dismissal was requested by the plaintiff [Ritchie], the manufacturer of Battery AD-X2, after being advised in pre-trial conference of the nature of the Government's defense of the suit." The case was dismissed with prejudice, which means Ritchie cannot reopen it.

The Government has not disclosed what that defense was to be, but there are indications that it would have involved findings which the Justice Department and the National Bureau of Standards, with its understandably more than routine interest in the case, had developed in preparation for its final showdown with AD-X2.

Ritchie's attorney said the case was being dropped because Ritchie could no longer afford to see it through. Ritchie, he said, is in business on the West Coast, still makes AD-X2, and it is bought by long-standing, satisfied customers.

Today, as far as the federal government is concerned, AD-X2 stands in a sort of administrative no-man's land. The Bureau of Standards has found it worthless, the Federal Trade Commission has found that customers are satisfied that Ritchie is giving them what they pay for, and the Post Office Department carries the product through the mails without restrictions, which is just where Ritchie was back when he touched off the controversy by seeking to have his product exempted from the Bureau of Standards' blanket condemnation of battery additives .-D.S.G.

Announcements

The National Science Foundation has formed an Office of International Science Activities to provide federal agencies and other interested groups with staff and policy guidance on international aspects of research support, science education, and exchange of scientific information; and to develop experimental programs in international science cooperation. The new office, headed by Arthur Roe, former director of NSF's planning group for educational and international activities, will also cooperate with the Department of State in formulating a U.S. foreign policy in science and science education.

Sets of metals abstract references are currently available through the American Society for Metals' world information files. The 1960 files cover columbium, molybdenum, tantalum, tungsten, cryogenic properties of metals, vacuum melting and casting, nondestructive testing, explosive forming, and oxygen steel-making. Prices, commensurate with number of abstracts, range from \$12 to \$45. (ASM, Metals Park, Ohio)

The Soviet Ukrainian Academy of Sciences is establishing an Institute of Cybernetics Problems in Kiev to promote theoretical research in the development of new computing, control and information machines, and telemechanic systems. A similar institute is to be set up in Moscow under the U.S.S.R. Academy of Sciences, and a cybernetics department is being founded at the academy's Siberian branch in Novosibirsk.

A new federation of eye banks, to be known as the Eye-Bank Association of America, has been established by the American Academy of Ophthalmology and Otolaryngology. Objectives of the association will be to standardize the activities of eye banks, to educate the public and establish national legislation on eye donations, and to promote research in the prevention and treatment of blinding eye diseases. (Ross Guglielmino, President, Associated Eye-Banks, Rochester, N.Y.)

A recent survey of over 1000 African students in the United States showed that 79 percent were satisfied with their training. Nearly half of the students believed that their U.S. education would prepare them for their professional ca-

reers, but 28 percent indicated they would need practical experience or further graduate study. The survey, sponsored by the Institute of International Education, also revealed that over a third of the students were studying social sciences, 16 percent were in the physical or natural sciences, and only 9 percent were in engineering. (IIE, 800 Second Ave., New York 17. \$2.50)

Highly purified C¹⁴-labeled substances (milk fat, lactose, citrate, casein, and albumin), accumulated and preserved over a 12-year period for experiments on milk synthesis in lactating dairy cows, are currently available through the University of California. (Jack R. Luick, Department of Animal Husbandry, University of California, Davis)

Recent National Science Foundation publications:

Proceedings of a Conference on Academic and Industrial Basic Research (Nov. 1960, Princeton Univ.) covers the role of government, industry, and the university; the interdependence of academic and industrial basic research; managerial and personnel problems in research laboratories; and examples of industrial experience in basic research. \$0.55.

Publication of Basic Research Findings in Industry, 1957–59, covers publication policies and practices of 174 companies conducting basic research. \$0.25.

The Long-Range Demand for Scientific and Technical Personnel, prepared by the U.S. Department of Labor's Bureau of Labor Statistics. The report describes the method for estimating the long-range demand, and, based on presently available data, projects the estimates to 1970. \$0.50. (Superintendent of Documents, Government Printing Office, Washington 25, D.C.)

Meeting Notes

The first Southeastern conference on theoretical and applied mechanics will be held at Gatlinburg, Tenn., from 3 to 4 May 1962. The conference, sponsored by Oak Ridge National Laboratory, will cover solid and fluid mechanics, and dynamics. (H. W. Hoffman, Oak Ridge National Laboratory, Oak Ridge, Tenn.)

A 17-day electronics overseas seminar, sponsored by Electrical Design News, will begin on 14 February 1962. Participants, limited to 30 in the electronics designing or engineering fields, will attend the Salon Internationale des Composantes Electroniques in Paris from 16 to 20 February, and will visit major electronics research and development centers in England, France, Germany, Holland, and Denmark.

Subsequent EDN-sponsored seminars will comprise engineers and designers in the aerospace, machine-tool, business-machine, and other industries. (Lawrence L. Rosine, Rogers Publishing Co., 3375 S. Bannock St., Englewood, Colo.)

The 1962 conference on data acquisition and processing in medicine and biology will be held from 18 to 19 July in Rochester, N.Y. Papers should reflect fundamental approaches and philosophies of diagnostic and data-enhancing methods, clinical applications, instrumentation, feasibility studies, or actual computations. Deadline for abstracts: 1 March 1962. (Kurt Enslein, Brooks Research, Inc., Box 271, E. Rochester)

Grants, Fellowships, and Awards

Scientists who have completed residency training, or who are conducting independent clinical or basic research, are invited to apply for fellowships in medical education research, recently established by the American Heart Association. Selected candidates will attend one of the three medical schools that have departments of research in medical education. No fixed stipend has been established. (F. J. Lewy, AHA, 44 E. 23 St., New York 10)

Individuals and firms or other interested groups with research or development capability in coal technology and economics are invited to submit contract research proposals for consideration by the U.S. Office of Coal Research. Proposals (five copies) should include title, primary purpose, objectives, and estimated duration of the project; procedures to be followed; background and qualifications of personnel who would work on the project; an estimated budget breakdown covering the cost of each item and the total cost; and background information, describing the location, facilities, special equipment available, and previous research work performed in the categories covered or in related fields. (U.S. Department of the Interior, OCR, Washington 25, D.C.)

The University of Wisconsin is offering fellowships and assistantships in educational psychology, including human development and learning, individual diagnosis and remediation, measurement, and statistics and research design. Fellowships are \$2000, \$2200, and \$2400 for the first, second, and third years, respectively, with an additional \$400 for each dependent. Deadline: 15 February 1962. Applications for assistantships (\$1965 to \$3000) will be accepted at any time. (Lindley J. Stiles, Department of Educational Psychology, University of Wisconsin, Madison 6)

Graduate traineeships in **biometry** are currently available through the U.S. Public Health Service. Stipends, which include dependency allowances, vary according to education and experience. (Executive Secretary, Advisory Committee on Epidemiology and Biometry, PHS, Bethesda 14, Md.)

For those applicants who are unable to train during the academic year, a cooperative graduate summer session on statistics in the health sciences is offered at elementary, intermediate, or advanced levels. (Lincoln Moses, Department of Statistics, Stanford University, Stanford, Calif.)

The National Science Foundation has established an undergraduate instructional scientific equipment program, intended to strengthen the scientific resources of smaller colleges and universities granting bachelor of science degrees. The new plan will provide funds, not to exceed \$25,000, for microscopes, centrifuges, microtomes, test equipment, and similar scientific apparatus to be used in laboratory or lecture demonstrations. All grants under the program are required to be on a matching basis, with at least 50 percent of the direct costs to be derived from nonfederal sources. (NSF, 1951 Constitution Ave., NW, Washington 25, D.C.)

The University of Cincinnati's Institute of Industrial Health is offering graduate fellowships in the following programs:

Industrial medicine, leading to the

doctoral degree in the field: Stipends for the first 2 years vary from \$3000 to \$4000, depending on marital status. In the final or residency year, the fellow will be compensated by the organization in which he is completing his training. A 3-year academic program, leading to the D.S. degree, and a 1-year program leading to the M.S. degree, are also offered.

Environmental hygiene (industrial hygiene, wastes, and toxicology; air pollution; and other subjects), leading to the degree of D.S. in industrial health. A 1-year course is also offered for candidates for the M.S. degree. Starting stipend is \$3000 for unmarried students and \$3600 for married students.

All applicants must be medicalschool graduates who have completed a minimum of 1 year's internship. (Secretary, Institute of Industrial Health, College of Medicine, Eden and Bethesda Aves., Cincinnati 19, Ohio)

Fellowships for graduate training in the **history and logic of science** are available at Indiana University for the 1962–63 academic year. (Marie B. Hall, 108 Social Science Building, Indiana Univ., Bloomington)

The Office of Naval Research is considering research proposals within the scope of Project SQUID—investigation of the physical and chemical processes associated with the conversion of energy into thrust. The project includes the preliminary exploration, analysis, and evaluation of potential aerospace propulsion systems. Deadline: 29 January 1962. (John B. Fenn, Princeton University, Princeton, N.J.)

Grants-in-aid of research on the ecology of the Blue Ridge Mountains' escarpment gorges are available through the support of the National Science Foundation. (Executive Director, Highlands Biological Station, Highlands, N.C.)

The American Chemical Society is soliciting nominees for the 1962 Dexter award in the history of chemistry. The \$1000 award will be made on the basis of publications, teaching methods, bibliographical contributions, or other services which have advanced the history of chemistry. Deadline: 10 March 1962. (Sidney M. Edelstein, Dexter Chemical Corp., 845 Edgewater Rd., Bronx 59, N.Y.)

Scientists in the News

Gilbert H. Mudge, professor and chairman of the department of pharmacology and experimental therapeutics, and associate dean of Johns Hopkins School of Medicine, has been appointed dean of Dartmouth Medical School. He will succeed S. Marsh Tenney, who is resigning his administrative post in order to devote more time to teaching and research as chairman and professor of physiology.

J. Stannard Baker, director of research and development at Northwestern University's Traffic Institute, has won the \$1000 Metropolitan Life award for research in accident prevention.

Glenford H. Clewett, Laurence E. Sausa, and Lewis P. Twichell, of the Union Carbide Nuclear Company, have each received a \$1000 K. C. Li prize for advancing the science of tungsten. The award, last presented in 1957, is administered by Columbia University.

Richard E. Young, of Hercules Powder Company's chemical propulsion division, has won the 1961 Airpower Achievement Award in Research and Development. The prize, presented by the New Jersey Wing of the Air Force Association, was awarded for his development of a new case material for solid-propellant rocket motors.

Jack R. Van Lopik, former chief of the military projects section at the U.S. Army Engineer Waterways Experiment Station in Vicksburg, Mississippi, has joined the geosciences department of Texas Instruments Inc., in Dallas.

Hubert V. Pipberger, assistant professor of medicine at Georgetown University, is the 1961 winner of the Veterans Administration's William S. Middleton award for his method of analyzing electrocardiograms by means of electronic computers.

At the U.S. Atomic Energy Commission's Puerto Rico Nuclear Center:

Henry J. Gomberg, former University of Michigan director of research on the peaceful uses of atomic energy, has been appointed deputy director of the center.

F. K. S. Koo, associate scientist in

the center's agricultural biosciences division and professor of genetics at the University of Puerto Rico, has been named corresponding member of the Academia Sinica Institute of Botany in Taipei, Taiwan.

Recent staff appointments at Electro-Optical Systems in Pasadena, Calif.:

Morton B. Prince, corporate vice president of Hoffman Electronics, has become manager of microelectronics.

Guntis Kuskevics, of General Electric Company, and James A. Bittles, of the University of Southern California, have become senior scientists.

Elizabeth B. See, formerly with the El Segundo division of Douglas Aircraft Company, has become a senior scientist in the research department of Acoustica Associates, manufacturers of ultrasonic systems.

Recent staff appointments in the University of Chicago's department of psychology:

David Bakan, of the University of Missouri, and **Robert McCleary**, of the University of Michigan, have been named professors of psychology.

Erika Fromm, of Northwestern University Medical School, has been named professorial lecturer.

Robert E. Thompson, former director of pharmacy for Armour Pharmaceutical Company, has been appointed director of Schering Corporation's pharmaceutical research and development division.

Robert G. Grenell, professor of neurobiology at the University of Maryland, is spending a year in Trivandrum, India, with the U.S. Agency for International Development. He has been assigned to Travancore University's medical college.

Walter L. Palmer, one of the original eight faculty members of the University of Chicago's school of medicine, is retiring from his post as Richard Crane professor of medicine. He will continue with the university as a clinician, teacher, and clinical investigator.

Recent staff appointments at the U.S. Public Health Service's division of air pollution:

Robert J. M. Horton, professor of epidemiology at the University of

Michigan, has become chief of the field studies branch.

David L. Coffin, pathologist for the Animal Health Center in New York, has become director of research at the division's laboratory of medical and biological sciences.

Sidney W. Fox, of Florida State University, has been named director of the university's newly formed Institute for Space Biosciences.

Bernard M. Wilner, formerly with Aerojet-General Corporation, has become principal scientist in Electro-Optical Systems' fluid physics division, Pasadena, California.

William E. McEwen, professor of chemistry at the University of Kansas, has been appointed Commonwealth professor and head of the department of chemistry at the University of Massachusetts.

Martin W. Essigmann, chairman of dependent Laboratories' third annual has been named dean of research at Northeastern University.

Willis E. Lamb, Jr., Wykeham professor of physics at Oxford University (England) and a 1955 Nobel laureate, will become the first Henry Ford, II, professor of physics at Yale.

Charles E. Enderby, former assistant professor of electrical engineering at the University of Illinois, has joined General Electric Company's traveling-wave tube product section as a senior engineer.

Herbert M. Block, vice president of United States Testing Company, has received the American Council of Independent Laboratories' third annual meritorious service award.

Fred Alt, chief of the National Institutes of Health's instrument engineering and development branch, has been selected to organize and direct a biomedical sciences division for the Instrument Society of America.

Robert A. Norris, laboratory technician at the Irwin Memorial Blood Bank of San Francisco and an independent research ornithologist, has received the 1961 George Mercer award of the Ecological Society of America and the 1961 Harry R. Painton award of the

Cooper Ornithological Society. He shares the Painton award with Gordon L. Hight, Jr., of Rome, Ga.

Recent staff appointments at the U.S. Public Health Service's occupational research and training facility in Cincinnati:

Francis M. Dukes-Dubos, of the Johns Hopkins University chemistry department.

Robert C. Stroud, of the Naval Medical Research Laboratory in New London, Conn.

Alexander Cohen, of the U.S. Army Quartermaster Research and Engineering Command in Natick, Mass.

Clark M. Humphreys, of the American Society of Heating, Refrigerating, and Air Conditioning Engineers Laboratory in Cleveland, Ohio.

Awards received by staff members of the National Institutes of Health:

George Z. Williams, chief of the clinical pathology department at the NIH Clinical Center, has won the Ward Burdick award for outstanding service in pathology.

Helen M. Dyer, of the National Cancer Institute's laboratory of biochemistry, has won the Garvan medal of the American Chemical Society.

Stanley J. Sarnoff, chief of the National Heart Institute's laboratory of cardiovascular physiology, was presented an award by the Kansas City (Mo.) Heart Association for his work in cardiovascular basic research.

Philip F. Ordung and Albert G. Conrad, of Yale University, have been appointed professor and dean of the School of Engineering, respectively, at the University of California (Santa Barbara).

Ira Charak, former senior nuclear engineer for Chance Vought Corporation, has joined Internuclear Company, a subsidiary of Petrolite Corporation, in St. Louis, Missouri.

Paul H. Emmett, Grace professor of chemistry at Johns Hopkins University, delivered the Peter C. Reilly lectures at the University of Notre Dame during the week of 10 December 1961.

Constantine Andricos, of the W. L. Maxson Corporation, has been appointed senior engineer at PRD Electronics' products and components division in New York.

Gwynn Nettler, formerly with Dando, an industrial psychology firm in Mexico City, has been appointed senior clinical psychologist at the Nevada State Department of Health's Special Children's Clinic in Reno.

Frank M. Setzler, formerly of the Smithsonian Institution's department of anthropology, has been named director of the Southeast Museum of the North American Indian in Marathon, Florida.

Recipients of the Chicago Technical Societies Council 1961 merit awards for scientific and technical achievements:

David W. Young, research associate for Sinclair Research, Inc., at Harvey, III

Piero P. Foa, professor of physiology and pharmacology at Chicago Medical School.

Leo Dolkart, electrical engineering consultant in Chicago.

Gabriel Betancur-Mejia, former Colombian minister of education, has been named to head the Organization of American States' Inter-American Task Force for Education, Science and Culture.

Recent staff appointments at the University of Oregon Medical School:

Richard W. Olmsted, of Temple University School of Medicine, will become professor and chairman of the pediatrics department.

Harold T. Osterud, of the Lane County (Oregon) Health Department, has been named associate professor of public health and preventive medicine.

Karl Meyer, professor of biochemistry at Columbia University College of Physicians and Surgeons, has received the New York Medical College award for his work in the study of mucopoly-saccharides.

The New York Academy of Sciences' annual A. Cressy Morrison awards for research in natural science have been presented to:

G. Barski and Fr. Cornefert, of the Institut Gustave Roussy in Villejuif (Seine), France, for their work on the genetic mixing of artificially grown clone cells.

Dominick P. Purpura, of Columbia University's College of Physicians and Surgeons, for his work on the nerve organization of the cerebral cortex.