with Wiesner at the Pugwash conference, "the major countries of the world have been putting their labor and treasury into the most complicated and highly organized effort man has ever carried out, and have erected in juxtaposed position an enormous amount of power. One cannot disassemble this casually, because if a mistake is made you risk the very catastrophe that you seek to avoid." The other side of the problem was suggested by Wiesner: "I don't think," he said, "there is time enough to tinker around with small confidence-building measures and leave more comprehensive and more or less total disarmament down to whatever minor deterrent forces you want to leave to preserve stability to some later stage. Science and technology is moving too fast."

Thus it is easy to predict with some confidence the outlines of the policy paper on disarmament that will result from the review, but despite the great urgency, it is hard to predict with any confidence that a detailed plan acceptable to the Russians can be worked out. The situation, on an awesome scale, is the familiar one that it is a great deal easier to create a mess than to clean it up.

News Notes

News Briefs

Radiological health. Steps to reduce the national shortage of specialists in the field of radiological health and of technicians to serve in radiation protection and control programs are discussed in *University Curricula in Radiological Health*, a recent publication of the Division of Radiological Health, U.S. Public Health Service, Washington 25, D.C.

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Water pollution survey. The U.S. Public Health Service has announced results of the most comprehensive survey ever made of the problem of municipal water pollution control. The survey, conducted by the Conference of State Sanitary Engineers, disclosed that the United States needs approximately 5200 new sewage treatment plants and plant enlargements and additions, costing $2 billion.

These projects are required to treat municipal wastes, now being discharged into inland waters, from a population of about 42 million. The Public Health Service estimates that meeting these needs, together with new ones resulting from plant obsolescence and population growth, would cost about $600 million annually. This would be a 40-percent increase in national construction costs for sewage-treatment facilities.

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Chichén Itzá. Divers from Mexico and the United States are retrieving valuable artifacts from the depths of a *cenote* in the ruins of the Mayan city of Chichén Itzá, in Mexico's Yucatán. The sacred *cenote,* or Well of Sacrifice, has yielded hundreds of jade, gold, and copper ornaments, blackened fragments of rare Mayan fabrics, and a few human bones. Exploration of the huge natural well is under the direction of Mexico's National Institute of Anthropology and History in collaboration with the National Geographic Society and the Exploration and Aquatic Sports Club of Mexico.

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International study. The *Handbook on International Study*, a comprehensive guide listing international scholarships, has been published in two separate volumes for the first time, by the Institute of International Education. The two volumes, *Handbook on International Study: For Foreign Nationals* and *Handbook on International Study: For U.S. Nationals*, are published as sources of information for college and university personnel, student advisers, libraries, and others desiring data on international scholarship programs. The volumes can be purchased, for $3 apiece or for $5 a set, from the institute's headquarters (1 E. 67th St., New York).

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Reptile fossil. The 7-inch fossilized skeleton of a gliding reptile older than any previously known to science was found recently in Triassic rocks in an abandoned quarry in New Jersey. The American Museum of Natural History announced the discovery. The reptile lived some 175 million years ago.

New Journals

Agricultural and Biological Chemistry, vol. 25, No. 1, Jan. 1961. T. Mori, president. Agricultural Chemical Society of Japan, c/o Faculty of Agriculture, University of Tokyo, Bunkyo-ku, Tokyo, Japan. Monthly. $9 per year.

Estudos Agronómicos, vol. 1, No. 1, Jan.-Mar. 1960. H. Lains e Silva, director. Missão de Estudos Agronómicos do Ultramar, Rua Rodrigo da Fonseca, 103, Lisbon 1, Portugal. Quarterly.

Medical Electronics News, Mar. 1961. R. Rimbach, publisher. Instruments Publishing Company, Inc., 845 Ridge Ave., Pittsburgh 12, Pa. $6 per year.

Science Review, vol. 1, No. 5, Oct. 1960. C. del Rosario, director. National Science Development Board, National Institute of Science and Technology and the Philippine Atomic Energy Commission, P.O. Box 3596, Manila. Monthly. Free of charge.

Journal of the National Research Council of Thailand, vol. 1, No. 1, Nov. 1960. B. Kalakicha, Ed. National Research Council, Phya Thai, Rama VI Road, Bangkok, Thailand. Quarterly. $5 per year.

Abstracts of Human Developmental Biology, vol. 1, No. 1, Jan. 1961. G. ten Cate, Ed. Excerpta Medica Foundation, 119-123 Herengracht, Amsterdam, The Netherlands. Monthly. $17 per volume.

Los Alamos Scientific Laboratory Quarterly Review, Winter 1961. Los Alamos Scientific Laboratory, University of California, Los Alamos, N.M.

Chesapeake Science, vol. 1, No. 2, June 1960. R. J. Mansueti, Ed. State of Maryland, Department of Research and Education, Chesapeake Biological Laboratory, Solomons, Md. Irregular. $2 per year.

Applied Optics, vol. 1, No. 1, Jan. 1962. J. N. Howard, Ed. Optical Society of America, 1155 16th St., NW, Washington 6, D.C. Bimonthly. Members, $6 per year; nonmembers, $10.

Materials Research & Standards, vol. 1, No. 1, Jan. 1961. R. E. Hess, Ed. American Society for Testing Materials, 20th and Northampton Sts., Easton, Pa. Monthly. $5 per year.

Bulletin of the Hiroshima Agricultural College, vol. 1, No. 3, 1960. Hiroshima Agricultural College, Saijo, Hiroshima Prefecture, Japan.

Problems of the North (complete translation of the Russian journal *Problemy Severa*), No. 1, Dec. 1960. M. Dunbar, Ed. Translations Section, The Library, National Research Council of Canada, Sussex Drive, Ottawa 2, Canada. $7 per issue; single papers, $1.

Kybernetik, vol. 1, No. 1, Jan. 1961. Springer-Verlag, Heidelberger Platz 3, Berlin-Wilmersdorf, Germany. Irregular. Maximum price for 1961, DM. 80.

Scientists in the News

T. Dale Stewart has been appointed head curator of the department of anthropology, U.S. National Museum, Smithsonian Institution, filling the position recently left vacant by the retirement of Frank M. Setzler. Stewart has been a member of the staff of the museum since 1927; he has been curator of the division of physical anthropology since 1942.

Loren Eiseley, author, anthropologist, and provost of the University of Pennsylvania, has been awarded the 1961 John Burroughs medal in recognition of his most recent book, *The Firmament of Time*. The John Burroughs Association presents the award annually for literature which combines excellence and accuracy and which is based on original observation and conclusion.

Philip E. Ryan, executive director of the National Health Council since 1953, has been named executive director of the National Association for Mental Health, effective 1 May.

Kenneth T. Bainbridge, Harvard University physicist known for his research on isotopes and radioactivity and for his work on techniques for weighing atoms, has been named George Yasmer Leverett professor at Harvard. The professorship was established in 1958 through a bequest made by Leverett, a lawyer for Bell Telephone Companies and a graduate of Harvard and of Harvard Law School.

Kenneth T. Bainbridge

C. H. Waddington, professor of animal genetics at the University of Edinburgh, Scotland, will deliver the Jesup lectures at Columbia University. The lectures will be given on 18, 20, 25, and 27 April and on 2 and 4 May. Waddington's subject will be new patterns in morphogenesis.

D. W. Pearce, manager of chemical effluents technology for General Electric's Hanford Laboratories, Richland, Wash., has been appointed director of health, safety and waste disposal for the International Atomic Energy Agency in Vienna, Austria. He will begin a 2-year assignment on 15 April.

J. A. Van den Akker, senior research associate and chairman of the department of physics and mathematics at the Institute of Paper Chemistry, Appleton, Wis., has been invited by the University of Manchester, England, to be a lecturer in physics during the 1961–62 academic year. He has been granted a Fulbright award.

Joseph P. Greenberg, former head of the section on chemotherapy, Laboratory of Malaria Studies, National Institute of Allergy and Infectious Diseases, Bethesda, Md., and former program director in microbiology, Stanford Research Institute, Menlo Park, Calif., has joined the staff of the Palo Alto (Calif.) Medical Research Foundation as chief of the new Microbiology Division.

Several visiting scientists from Australia have recently arrived in the United States.

M. G. Baillie, of the chemical engineering section of the Australian Atomic Energy Commission's Research Establishment, Lucas Heights, New South Wales, has arrived for a 2-year stay at Oak Ridge National Laboratory, where he will work in the Chemical Technical Division on the engineering evaluation and development of sulfate extraction contactors.

E. W. B. Da Costa, of the Commonwealth Scientific and Industrial Research Organization's Division of Forest Products, South Melbourne, will visit scientific institutions for 2 months, studying techniques for laboratory and field evaluation of the durability of wood, wood preservatives, and the physiology and taxonomy of wood-destroying fungi. His itinerary includes the University of California; the Forest Products Laboratory, Vancouver, B.C.; the Forest Products Laboratory, Madison, Wis.; the Southern Forest Experiment Station, New Orleans; Koppers Ltd., Pittsburgh; the New York State College of Forestry, Syracuse; the University of Maryland; the U.S. Department of Agriculture's Forest Disease Laboratory, Beltsville, Md.; Yale University; the Connecticut Agricultural Experiment Station; and the Department of Agriculture of Canada, in Ottawa. He will leave for the United Kingdom on 14 June.

E. S. Pilkington of the Commonwealth Scientific and Industrial Research Organization, Division of Mineral Chemistry, Melbourne, will be in North America for about 2 months, visiting centers of research in nonferrous metallurgy. He will visit the University of California, Berkeley; the U.S. Geological Survey, Denver; the University of Minnesota; Argonne National Laboratory; Wayne State University; the U.S. Bureau of Mines and the Westinghouse Research Laboratories, Pittsburgh; Oak Ridge National Laboratory; the U.S. Geological Survey, Washington, D.C. (10–12 May); and the University of Toronto and other scientific institutions in Canada. He will leave for the United Kingdom on 28 May.

Kenneth M. Brinkhous, chairman of the department of pathology at the University of North Carolina School of Medicine, was recently named recipient of the O. Max Gardner award. The award is made to the member of one of the faculties of the Consolidated University of North Carolina who, during the current scholastic year, "has made the greatest contribution to the welfare of the human race." Brinkhous is known for his research on hemophilia.

Leland G. Merrill, Jr., Rutgers University entomologist, has been named dean of the university's College of Agriculture and director of the Agricultural Experiment Station. He succeeds William H. Martin, emeritus dean of the College of Agriculture, who retired last June.

Joseph T. Velardo, assistant professor of anatomy at the Yale University School of Medicine, has been appointed professor and chairman of the department of anatomy of New York Medical College, effective 1 July. He succeeds J. Clifford Hayner, who will become professor emeritus in residence at the college.

S. S. Barkulis, director of microbiological research with CIBA Pharmaceutical Products, Inc., Summit, N.J., has been awarded the eighth annual Selman A. Waksman award by the New Jersey Branch of the Society of American Bacteriologists. The award is presented every year to a scientist in the eastern section of the United States who is under 40 years of age.

Walter P. Work, associate clinical professor of otolaryngology at the University of California School of Medicine, has been named chairman of the department of otolaryngology at the University of Michigan Medical School, effective 1 July. He succeeds the late James H. Maxwell.

Alexander Kossiakoff, pioneer in the field of solid propellant rockets and a well-known physical chemist, has been named associate director of Johns Hopkins University's Applied Physics Laboratory in Silver Spring, Md. He has been assistant director of the Laboratory since 1948.

Harold L. Segal, associate professor of pharmacology at the St. Louis University School of Medicine, has been awarded a 6-month National Science Foundation fellowship to conduct research at the University of Vienna in Austria, where he will investigate the chemical structure of proteins. He will be on leave of absence until 1 September.

Ralph A. Sawyer, vice president for research and dean of the graduate school at the University of Michigan, recently received the Spectroscopy Society of Pittsburgh's annual award for outstanding contributions to the field of spectroscopy. The presentation took place during the Pittsburgh Conference for Analytical Chemistry and Applied Spectroscopy, which was attended by more than 3500 scientists.

Col. **Charles H. Roadman** of the National Aeronautics and Space Administration, since last June a special assistant to the director of the Office of Life Sciences, has been appointed deputy director of that office. Roadman, a career Air Force officer, is a specialist in aviation medicine.

George Welford has joined U.S. Nuclear Corporation, Burbank, Calif., as director of its Laboratory for Radiochemical Bioassay and Environmental Testing. Welford was formerly with the Atomic Energy Commission's Health and Safety Laboratory, where he was leader of the Radiochemical Methods Development Group.

George C. Sponsler recently joined the Research and Development Division at the Navy Bureau of Ships as chief scientist for research and development on the Technical and Analysis and Operations Research Staff. Previously, Sponsler was senior scientist at the Hoffman Science Center, Santa Barbara, Calif.

Benjamin Pasamanick, professor of psychiatry at Ohio State University and director of research at the Columbus Psychiatric Institute, has received the $500 Stratton award of the American Psychopathological Association for his studies on the epidemiology of mental disorder.

James W. Perry recently became a member of the faculty of the systems engineering department at the University of Arizona's College of Engineering. He was previously director of the Documentation Center at Western Reserve University. Application of electronic automation to non-numerical information is his principal field of interest.

I. Moyer Hunsberger has been named dean of the College of Arts and Sciences at the University of Massachusetts. A former Fordham University professor, he joined the university last September to head its department of chemistry. In his new post he succeeds **Fred V. Cahill, Jr.**, who resigned last July to become dean of general studies at North Carolina State College.

After 38 years of service with the U.S. Department of Agriculture, **John T. Scanlan** has retired as head of lubricants investigations at the Agricultural Research Service's Eastern Utilization Research and Development Division in Wyndmoore, Pa. Scanlan is best known for his research program on animal fat, which led to the development of some important commercial products, including a purified oleic acid and a stabilizing plasticizer that enables plastic compositions to withstand the effects of heat and light. He also developed several processes for obtaining lanolin derivatives from wool wax.

Recent Deaths

Parry Borgstrom, Washington, D.C.; 71; superintendent of the U.S. Naval Research Laboratory's Chemistry Division from 1933 until his retirement in 1954; received the Navy's Distinguished Civilian Service Award in 1946; was instrumental in the development of anti-chemical-warfare equipment, aids for personnel downed at sea, and improved methods of fighting oil fires; 25 Feb.

David M. Gould, Denver, Colo.; 48; chairman of the department of radiology at the University of Colorado School of Medicine; formerly department head at the University of Arkansas Medical Center; 1 Apr.

Harry E. Hammond, Columbia, Mo.; 77; emeritus professor of physics at the University of Missouri, where he taught for 35 years; retired in 1955; 18 Mar.

Thomas H. Lanman, Chestnut Hill, Mass.; 69; clinical professor of surgery, emeritus, at Harvard University, where he served from 1928 to 1957; was a pioneer in the surgical treatment of pulmonary disorders in infants and young children; 25 Mar.

George F. Myers, Jackson Heights, N.Y.; 96; pioneer in aviation and a contemporary of the Wright brothers; credited with inventions pertaining to the earliest heavier-than-air flying machines, helicopters, and parachutes; was a practicing patent attorney; 5 Apr.

Howard C. Naffziger, San Francisco, Calif.; 76; pioneer brain surgeon and former president of the American College of Surgeons; retired in 1952 from the University of California as emeritus professor of neurological surgery and a regent of the university; was a department chairman for many years; developed diagnostic tests for tumors of the central nervous system and attained international renown for surgical techniques he devised for removal of tumors of the brain and pituitary gland; 22 Mar.

Harry Raymond, Albany, N.Y.; 85; astronomer; retired in 1939 from the Dudley Observatory, Albany; 23 Mar.

John Unrau, Edmonton, Alberta; 45; head of the department of plant science at the University of Alberta and past president of the Genetics Society of Canada; contributed to research in cereal genetics; 1 Mar.

Erratum: In the editorial for 7 April, "Equal but separate," the third sentence of the last paragraph should have read: "In the alternatives of no federal aid or federal aid with some of it going to racially segregated schools, the choice must be for the second alternative."