The Traditional View

The goal of disarmament is part of the larger goal of seeking ways to reduce the likelihood of war. In the pursuit of this broader goal, the traditional emphasis has been less on disarmament and more on striving for a stable balance of power—that is, a balance in which no nation or alliance would be tempted to start a war since it would be opposed by an alliance strong enough to make the war extremely costly, strong enough to make the aggressor nation realize that there was a good chance it would lose the war. The trouble with the balance of power theory, according to some students of the problem today, is that nations do not behave as rationally as one would wish. A war can begin without either side really wanting it.

Present research on the problem of reducing the likelihood of war, although widely known as "disarmament research," differs chiefly from the traditional concern with the balance of power in replacing that concept with the concept of the balance of terror—that is, a balance among nations any of which has the power to pour devastation upon any other nation even if it is itself the victim first of a devastating surprise attack.

Some students of international affairs have now come to believe that a nation may find it in its own interest to work actively with its potential enemy to achieve a stable balance rather than seek only to maximize its own power and leave the potential enemy to keep pace. This school also believes that, given an apparently stable balance, rival powers may be able to work much more consciously than they have in the past to lessen the chance of war by accident, by misunderstanding, or by miscalculation.

What is being sought today under the heading of "disarmament research," accordingly, is not so much a decrease in the likelihood of war through disarmament as a decrease through an increase in international stability. In the short run at least, according to some students, serious proposals for reduction in armaments may play only a minor role in the effort to reduce the likelihood of war. This state of affairs is partly the result of the great difficulty of working out adequate inspection measures to insure that the provisions of a disarmament treaty are obeyed and partly the result of uncertainty concerning the effect of certain types of arms reductions on the goal of increasing international stability. In fact, it has been argued that disarmament, unless carefully planned, could, paradoxically, increase rather than decrease the danger of war.

Difficulties Facing Disarmament

It has been argued, for example, that the most promising areas for arms control today are not those which involve the dismantling of nuclear stockpiles and missiles; that, on the other hand, it is the very existence of massive and invulnerable deterrent forces that is the best safeguard against a nuclear war, since no nation can wish to start a war which it can be certain will lead to the inevitable devastation of its homeland. This view suggests that general nuclear disarmament may decidedly increase world tensions, since in the absence of an absolutely foolproof inspection system, which would probably be impossible to achieve, each nation would be stricken with fear that its rivals might be secretly assembling a nuclear striking force before which the nation observing the weapons ban would be defenseless. In any case, it can be argued that general nuclear disarmament, even if it could be achieved, would in one sense be illusory. For the technical knowledge of how to build bombs and missiles would still exist, and the outbreak or perhaps even the threat of outbreak, of war would be quickly followed by a race for nuclear rearmament; a nation might even be tempted to strike before the other fellow had a chance to assemble a nuclear force.

The weight of such arguments, plus the enormous difficulties of working out adequate and acceptable nuclear inspection systems, has led the researchers to think primarily in terms of stability-enhancing proposals with far more limited objectives than general disarmament and even to suggest that, in the short run at least, stability might be increased by additional armaments, including certain types of nuclear weapons.

The new research on "disarmament" involves attempts of political scientists, physicists, military experts, students of international law, and experts in still other fields to formulate proposals for promoting stability and to think them through carefully so that their implications may be understood as thoroughly as possible—H.M.

News Notes

Another Round in the Test-Ban Talks: The Pool Proposal

The United States has attempted to meet the Soviet demands for "safeguards" to insure that the U.S. seismic research program to improve methods of policing small underground nuclear explosions would not also serve to develop new weapons. At the Geneva test-ban talks on 12 July, James J. Wadsworth, the U.S. delegate, proposed the creation of a pool of early Western and Soviet nuclear devices that would be open to inspection and use by both sides.

This latest attempt to break the deadlock in the proceedings, which have been stalled for weeks over the method of carrying out a research program to improve existing seismic detection of small-scale underground tests, was acknowledged by the Soviet delegate, Semyon K. Tsarapkin, with a promise to refer the proposal to Moscow for study.

The terms of the proposal provide (i) that the three nuclear powers would supply approximately the same number of early nuclear weapons; (ii) that these devices would be inspected externally and internally (without destruction) by all three parties at the time of deposition; (iii) that the devices would be placed under international guard; and (iv) that each country could then withdraw from the pool devices to carry out research programs which had received the approval of the three parties. Each nation could use nuclear weapons of the other two nations for research purposes.

Soviet Reaction

Soviet reaction to the plan, while unofficial, has perhaps indicated the position that Moscow will take. Tsarapkin, addressing the summer school of the World Federation of United Nations Associations in Geneva on 19 July, did not object to the relaxation of American nuclear-secrets legislation to allow inspection of the test devices by the Soviet Union, but he denounced the proposal of international contribution to the pool as "fantastic" and "nonsensical." As the Soviet Union is perfectly satisfied with the existing detection system and intends to conduct no research, he asserted, there is no

reason for the Soviet Union to contribute devices to such a pool; the United States, however, definitely should allow inspection of those weapons which will be used in the proposed research program. The Russians have asserted that without Soviet inspection the United States would be able to test illicit weapons.

Tsarapkin used this opportunity to repeat charges that "influential forces" in the U.S are blocking the signing of a treaty banning all nuclear tests. Sir Michael Wright, the British delegate, who addressed the summer-school group after the Soviet delegate had concluded his remarks, dismissed the Russian's speech as "propaganda." Wright had indicated British approval of the latest American plan at the time of its proposal.

Secrecy Legislation

In proposing the plan, Wadsworth announced that the Administration would ask Congress to relax existing secrecy legislation to allow the plan to become operative. (Relaxations would apply only to devices for seismic research programs.) The Administration first broached the idea of Soviet inspection of American nuclear devices to the Joint Committee on Atomic Energy on 24 June. The adverse reaction of the committee led to the resubmission of the proposal three days later with a clause providing for reciprocal inspection.

A member of the committee, Bourke B. Hickenlooper (R.-Iowa) has stated that he sees no objection to reciprocal inspection of "obsolete" nuclear devices. Other political sources have questioned the Administration's ability to pass such legislation during a campaign year.

The purpose of the nuclear-secrets legislation has been twofold: (i) to prevent information from falling into Soviet hands and (ii) to keep non-nuclear nations from obtaining material which would assist them in developing atomic weapons. The former concern now applies only to the more advanced weapons, but the latter involves the older weapons as well. The question has been raised in some political circles as to how the United States could share such information with the Soviet Union and refuse to make it available to U.S. allies.

Existing legislation empowers the executive branch to tell our allies only about the external characteristics of our nuclear devices so that U.S. warheads can be fitted on allied delivery systems. Great Britain is an exception. Under the terms of the Atomic Energy Act of 1954 no country can be told of the weapon design or nuclear components of these devices, but a 1958 amendment to this law enabled the executive branch to give this information to Great Britain.

Other Developments

Earlier this month, in another development, the Russians agreed to a British plan for East-West parity in top jobs on the international control board which would supervise the moratorium on nuclear testing. This plan provides that the chief administrator and his principal deputy will be neutrals acceptable to both sides. The four other deputy-administrator positions will be divided equally between the East and the West.

The day after the pool plan was submitted, Wadsworth announced that the United States agreed to the idea of a fixed number of inspections for the parties to the treaty. The treaty proposals still do not specify the number of such inspections, but informally the United States has suggested 20 inspections for the Soviet Union. Wadsworth again urged Tsarapkin to state the number of inspections that would be acceptable to the Russians. Tsarapkin continued his 20-month silence on this question.

The U.S. proposal also outlined the following procedure for establishing the number of inspections for nations that would sign the treaty in the future. In the beginning each new country would agree to one inspection per year for each 500,000 square kilometers; as the control commission gained experience, quotas of no fewer than two a year would be fixed for each country. Any party to the treaty would have the right to demand inspection in countries other than the original three, within their respective quotas.

The United States, in advancing the pool proposal and in agreeing to the idea of a fixed number of inspections, has set a new test of Soviet intentions as regards the test-ban treaty. Washington has stepped up the pace of the Geneva discussions to find out if Moscow intends to sign the treaty or if the Soviets are determined to keep the negotiations open indefinitely.

Pituitary Bank Founded

The establishment of the first pituitary bank in the world has been announced by the University of California Medical Center in San Francisco. Roberto F. Escamilla, clinical professor of medicine, will direct the bank, which will supply human pituitary glands for the treatment of children stunted by a deficiency of growth hormone. The need for such a bank has been demonstrated by research conducted in the medical school's Hormone Research Laboratory on the Berkeley campus.

Establishment of the bank is being aided by a grant from the Jefferson McLeod Moore Fund of the School of Medicine. Clinical studies have been supported by the Lasker Foundation, the American Cancer Society, and the McKee Fund of the School of Medicine.

Donations to the bank are to be made in the same manner as donations to eye and artery banks. Donors will sign an authorization for removal of their pituitaries at the time of death and will inform their relatives and physicians of this decision. The special authorizations must be filed with the university. Because the pituitary must be removed soon after death, such a donation cannot be accomplished by a clause in one's will. Authorization forms and additional information can be obtained from the University of California Pituitary Bank, University of California, San Francisco Medical Center, San Francisco 22, Calif.

Malaria Eradication

The following is the text of a statement released by the World Health Organization during July. The transmission of a vivax*-type malaria parasite of macaques to man was reported by D. E. Eyles et al.* [Science **131**, *1812 (17 June 1960)*].

It has long been known that the higher (anthropoid) apes had malaria, and that man might be susceptible to certain malaria parasites of apes. Opportunities for the transmission of malaria from apes to man are exceedingly rare, and the problem has therefore little practical importance.

The lower monkeys are also naturally infected with several types of malaria, but these are not transmissible

to man. Quite recently, however, laboratory research has shown that one of the malaria parasites of these monkeys can be transmitted to man by the bite of an anopheline mosquito which has fed on the monkey's blood.

A "reservoir" of malaria in monkeys may conceivably, therefore, add to the difficulties of eradicating human malaria in certain countries in which monkeys live in close proximity to man.

It is important, however, not to exaggerate the gravity of this situation, which is similar to that of diseases such as yellow fever, filariasis, or rabies where wild-life reservoirs of infection exist. Ways will have to be found of overcoming the difficulty, just as ways were found to overcome other difficulties in malaria eradication campaigns, such as the resistance of certain mosquitoes to insecticides.

Moreover, the monkey-malaria problem is likely to present itself only in a few areas of some countries of east Asia, while the eradication campaigns will be unaffected elsewhere.

Indeed, the new discovery is a cause for rejoicing rather than for concern. From the research point of view it is an advantage to be able to work with a malaria parasite which causes the disease in man but which can also be studied in monkeys. This may indeed open vast possibilities for experimental studies on new anti-malarial drugs which may hasten the final conquest of malaria.

Seismographic Facilities Expanded

Studies of earthquake aftershocks, which may be of value in developing techniques to distinguish between small natural earthquakes and man-made explosions, are being planned by the University of California, Berkeley. Six new seismographic facilities will be built in central California to automatically transmit earthquake information to the central seismographic station on the Berkeley campus.

The new stations will transmit information, by means of a telemeter, to the Berkeley station for recording. Under such an arrangement, (i) the outlying stations will not have to be staffed, (ii) only one timing system (that at Berkeley) will be required, and (iii) instrument troubles at the other stations will be immediately detected at Berkeley through the telemeter system.

The information system will enable the Berkeley scientists to locate the epicenter of a small earthquake (below magnitude 5) within a period of 1 or 2 hours after the main shock. After the epicenter has been located, three mobile seismographic units will be sent to the area and arranged to record the maximum possible amount of data on the aftershocks. These truck-based seismographic units will be equipped with radio-telephone transceivers so that placement and relocation can be supervised by the Berkeley staff. The project will also include the construction of a subterranean station to house the seismographic instruments of the Berkeley station.

Perry Byerly, professor of seismology and director of the university's seismographic stations, and Don Tocher, research seismologist, will direct the project, which is supported by a $400,000 grant from the Air Force Office of Scientific Research.

News Briefs

Sunspot photograph. A stratoscopic photograph of the umbra of a sunspot, taken from a balloon-borne telescope, shows clearly, for the first time, white gaseous dots within the umbra. The photograph just released by the National Science Foundation, was taken last September, near Minneapolis, by the Princeton University astronomy team, headed by Martin Schwarzschild. The bright spots are small in relation to the umbra—200 miles in diameter as compared to 8000 miles—and their lifetime is about half an hour. The nature of the spots is uncertain, but Robert Danielson, a member of the Princeton team, believes that they may be "convection cells somewhat like solar granulations, but strongly suppressed by the magnetic field of the sun spot."

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Polio vaccine trial. The Yale Poliomyelitis Study Unit recently completed the main phase of the Sabin live poliovirus vaccine trial, which started in New Haven last February. All of the 350 participants have now received the full course of vaccine for 1960. During the trial period there were no illnesses or any bad effects which could be attributed to the vaccine.

However, a long period of laboratory research is now necessary to determine how effective the vaccine has been, according to John R. Paul, professor of preventive medicine at Yale and director of the work. The Yale Poliomyelitis Study Unit has had experience with the disease for more than 30 years, and its laboratories are specially equipped to handle major projects such as the field trials.

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Italian scientists strike. This month Italy's nearly 2000 nuclear scientists went on strike for 2 days to protest (i) the interference of political and private business interests in their work and (ii) government inertia on research projects. Laboratories closed and physics students were not examined. The scientists hope to obtain a long-term commitment from the government to provide funds for research.

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Mt. Allison Institute. The department of extension of Mt. Allison University, Sackville, New Brunswick, Canada, is sponsoring a public affairs project, the Mt. Allison Summer Institute, 12–14 August. Under the general topic of "Science and Society," the institute will discuss science and human values, science and western culture, science and nationalism, the peaceful uses of atomic energy, the scientist and social responsibility, and the place of science in our educational system.

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AAAS branch anniversary. The Mobile Academy of Science, a local branch of the AAAS, celebrated its 25th anniversary on 20 May with a dinner at which the principal speaker was Fred R. Cagle, coordinator of research at Tulane University. Cagle, who has made two trips to the U.S.S.R. in recent years, spoke on "Science in the Soviet Union." The new president of the academy is James Boyles, University of Alabama Mobile Center.

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University reactors. The nuclear reactor on the university campus will be the subject of a meeting to be held in Gatlinburg, Tenn., 17–19 August, under the sponsorship of the Oak Ridge National Laboratory and the Oak Ridge Institute of Nuclear Studies, in cooperation with the Oak Ridge section of the American Nuclear Society and the Atomic Energy Commission. Further information is available from the University Relations Division, Oak Ridge Institute of Nuclear Studies, Box 117, Oak Ridge, Tenn.

New Journals

Katunob, Newsletter on Mesoamerican anthropology, vol. 1, No. 1, May 1960. Box 87, Southern State College, Magnolia, Ark. Irregular. $1.

The Mankind Quarterly, June 1960. R. Gayre, Ed. 1 Darnaway St., Edinburgh 3, Scotland. Quarterly. $4.

Analytical Biochemistry, vol. 1, No. 1, June 1960. A. Nason, Ed. Academic Press, New York, N.Y. vol. 1 (6 issues) 1960. $15.

Botanica Marina, vol. 1, fasc. 1 and 2, 1959. Cram, De Gruyter, Hamburg, Germany. DM. 28.

ICSU Review, vol. 1, No. 1, Jan. 1959. H. S. Jones, Ed. Elsevier, Amsterdam, Netherlands. Quarterly. $4.50.

Journal of Reproduction and Fertility, vol. 1, No. 1, Feb. 1960. C. R. Austin, Ed. Blackwell, Oxford, England. Quarterly. $12. Proceedings of the Society for the Study of Fertility are now published in this journal.

Radiological Health Data, Apr. 1960. U.S. Department of Health, Education, and Welfare. Office of Technical Services, U. S. Department of Commerce, Washington 25, D.C. Monthly. $0.50 per issue.

Compost Science, vol. 1, No. 1, spring 1960. J. Olds, Ed. Rodale Press, Emmaus, Pa. Quarterly. $4.

Medical World News, vol. 1, No. 1, Apr. 1960. M. Fishbein, Ed. Medical World Publishing Co., New York, N.Y. Biweekly. $12.50.

World Neurology, journal of the World Federation of Neurology, vol. 1, No. 1, July 1960. C. M. Poser, Ed. 84 S. 10th St., Minneapolis, Minn. Monthly. $15.

Ospedali d'Italia Chirurgia, vol. 1, No. 1, Nov. 1959. T. Greco, director. Via M. Buonarroti, 17, Florence, Italy. Monthly. $18.

Cancer Chemotherapy Abstracts, vol. 1, No. 1–2, Jan.–Feb. 1960. Scientific Literature, Inc. (108 S. 22nd St., Philadelphia 3, Pa.), for Cancer Chemotherapy National Service Center, Bethesda, Md. Monthly.

Developmental Biology, vol. 1, No. 1, Apr. 1959, M. V. Edds, Jr., Ed. Academic Press, New York, N.Y. $14.

Genetical Research, vol. 1, No. 1, 1960. E. C. R. Reeve, Ed. Cambridge University Press, New York, N.Y. Three issues per year. $17.50.

Ciencia Interamericana, vol. 1, No. 1, Jan.–Feb. 1960. Panamerican Union, Washington, D.C. Bimonthly. $0.15 per issue.

Scientists in the News

Midwesterners won three of the nation's highest awards in engineering education during the recent annual meeting of the American Society for Engineering Education at Purdue University.

Robert B. Bird, professor of chemical engineering at the University of Wisconsin, received the $1000 George Westinghouse Award for outstanding teaching ability in a young engineering faculty member.

Maurice J. Zucrow, director of the jet propulsion laboratories at Purdue University, received the Vincent Bendix Award for outstanding research.

Ali B. Cambel, chairman of the mechanical engineering department at Northwestern University, received the $1000 Curtis W. McGraw Award for research contributions by a young teacher of engineering.

The fourth award, the Lamme gold medal for distinguished contributions to engineering education and research, went to **Theodore von Karman**, chairman of the Advisory Group on Aeronautical Research and Development for NATO, who addressed the 3000 convention delegates.

Three of the four ASEE award winners were born abroad—von Karman in Hungary, Zucrow in Russia, and Cambel in Turkey—but all except the first received part of their education in the United States.

Maxim K. Elias, emeritus professor at the University of Nebraska, has received a National Science Foundation grant to spend 2 years at the Research Institute of the University of Oklahoma to work on the program "Carboniferous Bryozoa of America and Europe." He will make a trip to Europe during the second year of the grant.

This summer he will attend the International Geological Congress at Copenhagen as a member of the subcommission on carboniferous stratigraphy. He plans to lecture in the U.S.S.R. (in Russian) in September. He also expects to visit scientists in Leningrad and Moscow to facilitate the exchange of literature and scientific specimens in the areas of geology and paleontology.

Floyd S. Daft, director of the National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, has been elected president of the American Institute of Nutrition, effective 1 July. He will serve a 1-year term, during which the American Institute of Nutrition will be host society to the fifth International Congress on Nutrition, to be held in the United States this year for the first time. Approximately 3000 nutrition scientists from all parts of the world will attend the meeting in Washington, D.C., which is scheduled for the week of 1 September. Upon completion of his presidency in 1961, Daft will serve as chairman of the executive committee of the Federation of American Societies for Experimental Biology.

Jerome G. Rozen, Jr., assistant professor of entomology at Ohio University, has been made associate curator in charge of entomology at the American Museum of Natural History, New York.

Willis E. Lamb of Oxford University, who shared the 1955 Nobel Prize in physics with Polycarp Kusch, professor of physics at Columbia University, will return to Columbia as visiting professor of physics during the spring term of the 1960–61 academic year. He is a former member of the Columbia faculty.

Robert A. Rubega, a physicist in the underwater acoustics section of Stromberg-Carlson's Research Division, has received the first annual Stromberg-Carlson Award for Science and Technology. The $2000 award, established this year by the Stromberg-Carlson Division of General Dynamics Corporation, is to be given annually to an employee in recognition of outstanding achievement in science and technology.

Paul A. Anderson has resigned the chairmanship of the department of physics at Washington State University, Pullman, to devote more time to his research in biophysics. The new department chairman will be **William Band**, professor of physics at Washington State. He will assume his new post on 15 September.

James B. Kendrick, Sr., retired on 1 July after 33 years of service with the University of California. At retirement he was professor of plant pathology and plant pathologist in the California Agricultural Experiment Station, Davis. He had been in charge of the department of plant pathology on the Davis campus since 1927 and

chairman of the Davis-Berkeley departments of plant pathology since 1954.

Lysle D. Leach succeeds Kendrick as chairman of the Davis-Berkeley departments, and **W. C. Snyder** continues as vice-chairman.

The following men have been reappointed to the National Science Board.

The Rev. **Theodore M. Hesburgh**, president of the University of Notre Dame.

William V. Houston, president of the Rice Institute.

Joseph C. Morris, vice president of Tulane University.

The new appointees to the board were announced in the 15 July issue of *Science*.

Frederick J. Dockstader, assistant director of the Museum of the American Indian, Heye Foundation, New York, has been named director. He will succeed **E. K. Burnett**, who becomes director emeritus following a period of 30 years' service to the museum.

Keith R. Porter, who conducted pioneering research on cellular structure with the electron microscope, will become professor of biology at Harvard University on 1 July 1961. Until then, he will continue his research at the Rockefeller Institute, where he has been professor since 1956.

Alphonse Chapanis, professor of psychology and industrial engineering at the Johns Hopkins University, is taking a year's leave of absence, which he will spend as psychologist on the staff of the Office of Naval Research Branch Office in London. He will visit university, military, and industrial laboratories, attend scientific meetings, and give lectures throughout western Europe. His address will be: Office of Naval Research Branch Office, Keysign House, 429 Oxford St., London W.1, England.

Harold A. Scheraga, professor of chemistry at Cornell University and a leading investigator in the field of proteins, has been appointed chairman of the university's department of chemistry. He succeeds **Franklin A. Long**, who has completed his second 5-year term as department chairman.

Ernst W. Caspari, developmental geneticist and formerly chairman of the department of biology at Wesleyan University, has been appointed chairman of the department of biology at the University of Rochester, effective in September.

Arnold W. Ravin, former department chairman at Rochester, has been promoted to associate dean of the College of Arts and Science. During the academic year 1960–61, Ravin will be on sabbatical leave conducting genetic research, part of the time at the Institute de Génétique, Gif, France.

Heinz Werner, G. Stanley Hall professor of genetic psychology at Clark University, is retiring from the faculty and from the chairmanship of the university's department of psychology. He will continue in his posts of director and board chairman of the Institute of Human Development, an adjunct of the Clark department of psychology. He will also continue his grant-sponsored research in perception and language and will teach a graduate-level seminar.

George M. Briggs, executive secretary of the Biochemistry and Pharmacology Training Committees, Division of General Medical Sciences, National Institutes of Health, has been appointed chairman of the department of nutrition in the College of Agriculture at the University of California, Berkeley.

Oscar W. Richards, chief biologist of the American Optical Company's Research Department, Southbridge, Mass., has been elected an honorary fellow of the Royal Microscopical Society.

Paul W. Edwards, a chemical engineer with almost 40 years of service with the U.S. Department of Agriculture, has retired from the Agricultural Research Service's Eastern Utilization Research and Development Division in Wyndmoor, Pa. Edwards has been a member of the staff of the Wyndmoor laboratory since the first day of its operation, 17 August 1940, and has played a prominent role in many of its outstanding engineering developments. He has been in charge of unit operations investigations in the division's Engineering and Development Laboratory.

The American Museum of Natural History has announced several appointments.

William K. Emerson, formerly assistant curator in the Department of Fishes and Aquatic Biology, has been named chairman and assistant curator of the newly established Department of Living Invertebrates.

Norman D. Newell is chairman and curator of the newly established Department of Fossil Invertebrates. Since 1945 Newell has held positions both as curator of historical geology and fossil invertebrates at the Museum and professor of invertebrate paleontology at Columbia University.

Brian H. Mason, curator of physical geology and mineralogy, has been named chairman and curator of the newly established Department of Mineralogy.

Merrill S. Read will become director of nutrition service for the National Dairy Council, Chicago, on 15 August. He succeeds **Zoe E. Anderson**, who resigned on 1 June to become head of the department of home economics at Wayne State University. Read joins the Dairy Council from Virginia Polytechnic Institute, where, since last year, he has been visiting professor in the department of biochemistry and nutrition.

Evelyn L. Oginsky, associate professor of bacteriology at the University of Oregon Medical School, has received the 1960 Research Award of Iota Sigma Pi, national honor society for women chemists. The award is made once every 3 years to "recognize distinct achievement and to encourage a continuing and expanding career of greater promise." It has been presented only four times previously. Dr. Oginsky, co-author of the textbook *Introduction to Bacterial Physiology*, is widely recognized for her study and analysis of mode of action of streptomycin.

H. F. Stimson, a senior physicist in the National Bureau of Standards' Heat Division, has retired after more than 42 years of service. Stimson has made many contributions in the field of heat measurement and is recognized as one of the world's foremost authorities on the International Temperature Scale.

Ismael Vélez, professor of botany and director of the National Science Division of the Inter American University in San German, Puerto Rico, will lecture in botany at the University of Cuzco, Peru, from August through December.

Erratum. On the contents page of the 22 July issue, the authors of the report "Sound production by the satinfin shiner, *Notropis analostanus*, and related fishes," were incorrectly listed. H. E. Winn and J. F. Stout wrote the paper.