dation, Inc.; and Wallace W. Atwood, Jr., co-author of this article and a geologist-geographer, who was to serve as Director of the Academy's Mission to Vienna. The 18 hours of flying time to Vienna were devoted primarily to speculation. . . .

"A tentative plan was agreed upon: the [American] Embassy would provide space and office equipment for the Academy's operation and the INS would assist the Academy team on matters involving the Immigration Service. The purpose of the mission was clear. . . . Only one question remained unanswered: how many scientists were there among the refugees? . . . No one guessed that the actual total would exceed 500. . . .

"Arrival of the Academy's Mission in Vienna received no notice in the papers or on the radio. However, news of the Mission spread like wildfire and before the ink was dry on the forms, the first Hungarian scientists were knocking at the door. The Academy, however, was not willing to rely completely on the refugee grapevine and decided, therefore, that a formal message should be sent to the scientists and that it should be distributed to the refugee camps, the universities, and the various offices frequently visited by the refugees. . . .

"Distribution of the [message] had a surprising effect. Many scientists who had not requested immigration to any country and had not registered with any of the voluntary agencies literally came out of the woods. This development caused the Academy's team some concern because it had been expressly stated that refugee scientists who had found permanent professional employment in Austria should be encouraged to remain. But as it turned out, these people had no employment and urgently desired to find positions in other countries. Many of them are now on their way to the United States. Why these people had not registered with the immigration authorities is still a mystery. . . .

"Soon after the establishment of the Academy's Vienna office. . . . local newspapers announced that the United States had closed its doors. . . . Fortunately, the newspaper reports were incorrect. The door was closing, but refugees would continue to go to the United States under a restricted program.

"With this near catastrophe passed, interviews proceeded at an accelerated rate. In less than 8 weeks, 375 persons were interviewed. Dr. Arnold maintained a daily schedule from 8:30 to 6:00, 5 days a week. He was later aided by Arpad Csapo of the Rockefeller Institute, who interviewed the majority of the medical people among the refugees who called at the Academy's office. Additional professional interviewers included Samuel H. Williams, professor of zoology at the University of Vienna; Gabor Szego, professor of mathematics at Stanford University; and Lester Hawkins, a physicist on the staff of the U.S. Army Attache. The professional contributions of these American scientists, some of them temporary residents of Austria, made it possible for the Academy to carry out its mission. . . .

"It is appropriate to ask: How successful was the Academy's Mission to Austria? How many of those interviewed will actually reach the countries of their choice? Reports indicate that very few of the refugees seeking opportunities outside Austria failed to learn of the Academy's Mission, and all those whom the Academy believed it could assist within its restricted program were interviewed before the Mission departed. Although it is not possible as yet to say how many of these people will reach the countries of their choice, information currently available indicates that very few will fail to realize their desires. . . .

"This was a new type of activity for the Academy and, consequently, new methods of operation had to be devised. The major objectives of the Academy's participation in large measure have been attained. . . . Although the daily influx of Hungarian scientists has nearly ended, the Academy will maintain its Brooklyn office so long as it is needed to assist the remaining emigres to find places where they can exercise their talents in personal and scientific freedom."

American Institute of Physics

The American Institute of Physics has moved its national headquarters from 57 E. 55 St., New York, to its new home at 335 E. 45 St., near the United Nations Plaza. The remodeled building increases by three times the amount of space available for the expanded activities of the institute, which is an association of five professional societies with more than 18,000 members in this country and abroad.

The institute—founded in 1931 by the late Karl T. Compton, Paul D. Foote, George B. Pegram, and their colleagues—is a unified service organization that includes the American Physical Society, Optical Society of America, Acoustical Society of America, Society of Rheology, and the American Association of Physics Teachers.

The new headquarters was made necessary by expansion of the number and activities of physicists during and after World War II. In the past 14 years, the AIP headquarters staff has grown from 25 to 65, its membership has more than doubled, and the number of journal pages published annually has increased more than four times.

One of the reasons for the move was to ease the publishing crisis facing the field of physics; another was to provide for projects for improving the quality of physics teaching. At present, more than 19,000 pages appear in journals published by the institute; another 5000 pages are needed in order to report new research effectively. New journals are being planned and, in some instances, existing publications will be expanded.

Japanese Geneticists on Radiation

The following "Statement concerning the genetic effects of radiation upon man" was prepared in April by the Genetics Society of Japan and the Japan Society of Human Genetics and sent out by them to a number of colleagues in other countries.

"With the increasing utilization of atomic energy, man inevitably has greater chance of being exposed to radiation than he has previously had. Generally speaking, any kind of radiations causes some damage to organisms. Particularly, their genetic effect is serious for the following reasons:

"1. It has been demonstrated by many experiments that radiations induce genetic changes or 'mutations' in organisms. Man cannot be exempt from this rule. Some such mutations occur naturally, but radiations raise their frequency.

"2. The great majority of these mutations are deleterious to mankind. Their effect may appear in the next generation, but more commonly only in subsequent generations. Therefore, the apparent escape of the next generation from such an effect does not ensure the genetic safety of all descendants.

"3. The incidence of mutation increases in proportion to the total dose of radiation given to the gonad. Whether irradiation is continuous or intermittent, the same amount of mutation is induced in either case, provided that the total dose is the same, since the mutation which was once induced persists even after the end of irradiation and is handed down to progeny. Thus the genetic effect of radiations through the gonad is fundamentally distinct from their direct damage to the body, which may disappear after the end of irradiation.

"4. Human population acquires natural mutations which are of very low incidence. These mutations are removed by natural selection, and the newly-appearing mutations and those removed by selection are mutually balanced; the incidence of mutant genes is thus kept in equilibrium. Additional mutations artificially induced by irradiation cause the break-down of this equilibrium, and an increase of the mutant genes possessed by the population. Such a change will lead to a gradual increase of individuals

handicapped in physical strength or in mental capacity, increases the sacrifices of individuals and the burdens of the society, and leads to eventual disaster for mankind.

"From what has been pointed out above, we are led to conclude that any amount of radiation, however small it may be, is deleterious to the heredity of man. Although a certain dose has been set as 'permissible' for people engaged in the operation of X-rays and radioactive apparatus or substances, this is only aimed at the safety and health of those people themselves. However, as far as the genetic effect on their descendants is concerned, there is no theoretical limit below which danger may be entirely excluded.

"Although there can be hardly any question about the necessity for the peaceful utilization of atomic and other radiation energies, it is still all the more important to guard against any misuse or misoperation of such energies. This is not only for the safety of the present generation, but also for the health and prosperity of our descendants. Also, we must be on guard against the genetic effects of atomic or hydrogen bomb tests, which increase the level of radioactive contamination in the air and water.

"Under such circumstances, we geneticists eagerly hope that the general public will realize the urgency of the question at issue, and that effective means for its solution will be taken promptly."

Engineering College Survey

A national study now being conducted by the American Society for Engineering Education will evaluate the engineering research capabilities and potentials of American engineering colleges. Robert H. Ramsey, head of industrial reference in the College of Engineering at Pennsylvania State University, is director of the survey. The project has been made possible by a grant of $40,000 from the National Science Foundation to the Engineering College Research Council, ASEE's group concerned with engineering colleges' research activities.

After 8 months of planning and organization by an advisory committee, the survey was launched at the end of June by eight interviewers who are visiting 108 accredited engineering schools during the summer. They will ask how much research experience and ability is represented on each faculty, how much of this is already being devoted to research activities, and how much more could be devoted to research if adequate assistance were available.

The final report, due in December, will include a figure for the colleges' total engineering research potential and will provide an indication of the funds that may reasonably be appropriated for engineering college research. The survey will also report on facility deficiencies and equipment which would be needed to realize to a greater extent the research potential represented in the schools.

Rheumatoid Arthritis Test

A new diagnostic test for rheumatoid arthritis which is so simple and rapid that it can be performed in a routine clinical laboratory in 20 minutes was reported by Joseph J. Bunim, John Bozicevich, and Jules Freund of the National Institute of Arthritis and Metabolic Diseases, Bethesda, Md., at the ninth International Congress on Rheumatic Diseases that took place recently in Toronto, Canada.

Known as the Bentonite flocculation test (BFT), the procedure was described as being as accurate as the best of current tests, yet it produces results in a few minutes rather than days. By means of the new test, the average medical technician would be able to perform 100 or more tests per day.

The procedure employs as its key element a type of colloidal clay known as Bentonite, which is mixed with normal human gamma globulin. A drop of blood serum from the person being tested is added to a drop of Bentonite-gamma globulin mixture on a slide. If the test is positive, the Bentonite particles will flocculate within a few minutes.

The BFT test was administered to 25 patients with typical rheumatoid arthritis, the patients ranging from 18 to 69 years of age. In 20 patients (80 percent), tests were positive. When applied to 163 control patients with other types of rheumatic disease as well as a wide variety of other disorders, only three tests (1.8 percent), resulted in false positive reactions.

Thus, in its present preliminary stage of development the test appears to be able to detect accurately eight out of ten cases of rheumatoid arthritis and to yield false positives in less than two out of 100 cases. It was emphasized that the report was preliminary and that findings had not yet been confirmed in other research laboratories.

Howard Centennial Dinner

A centennial dinner in memory of Leland Ossian Howard, pioneer in American economic entomology, was held on 11 June in Washington, D.C. Howard, who died in 1950, was permanent secretary of the AAAS from 1898 to 1919 and its president in 1920. The dinner was sponsored by the Entomological Society of Washington, for which he had also served as president, and the Insecticide Society of Washington.

The centennial was attended by 140 people, many of whom were entomologists who had known Howard when he was the chief of the Bureau of Entomology, U.S. Department of Agriculture. The guests of honor were Howard's daughters, Lucy and Janet, and his grandson, Howard Payne. The master of ceremonies and chairman of the dinner committee was Mortimer D. Leonard, one of the many entomologists who had been encouraged by Howard.

Source Book for High-School Biology

The Committee on Educational Policies of the Biology Council, Division of Biology and Agriculture, National Academy of Sciences–National Research Council, reports that the summer writing conference to develop a source book of laboratory and field studies for high-school biology courses is under way at Michigan State University, cosponsor of the conference [*Science* **124**, 1022 (23 Nov. 1956)]. The session, which began on 24 June and will continue until 16 Aug., is supported by grants from the National Science Foundation.

Twenty high-school and ten college teachers are preparing the source book under the direction of C. A. Lawson, head of the department of natural science at Michigan State. High-school teachers were selected from 329 applicants, of whom 226 wrote sample exercises and were considered in the final selection.

NSF Science Faculty Fellowships

The National Science Foundation has announced that applications are being accepted for a second group of science faculty fellowship awards to be made in this calendar year. Closing date for receipt of applications is *3 Sept.* The primary purpose of these awards is to provide an opportunity for college and university science teachers to enhance their effectiveness as teachers. Fellowships are offered for study in the mathematical, physical, medical, biological, engineering, and other sciences, including anthropology, psychology, geography, and certain interdisciplinary fields. Approximately 60 fellowship awards will be made on 18 Oct.

Science faculty fellowships are open to any citizen of the United States who holds a baccalaureate degree or its equivalent, has demonstrated ability and special aptitude for science teaching and advanced training, has taught at the collegiate level as a full-time faculty mem-