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-

ber for not less than 3 years, and intends to continue teaching.

Stipends will be individually computed in order to match, as closely as possible, the regular salary of recipients. If a recipient has supplemental support during his tenure, the amount of his award will be reduced accordingly. The foundation's awards will be adjusted so that the combined support—from the foundation and other sources—will not exceed $10,000 per annum. Additional allowances will be made to assist in defraying costs of travel and certain other expenses associated with the fellowship study. Full tuition will be paid for fellows by the foundation.

Fellows may study at any accredited nonprofit institution of higher education in the United States or similar institution abroad that is approved by the foundation. Fellowships range from 3 to 15 months. Application materials may be obtained from the Division of Scientific Personnel and Education, National Science Foundation, Washington 25, D.C.

USPHS Senior Fellowships

The U.S. Public Health Service has announced that applications for senior research fellowships will be received until *1 Sept.* Awards will be made on or about 1 Dec. This program is designed to attract and hold able investigators in the basic sciences in the preclinical departments of medical schools, dental schools, and schools of public health. These fellowships are awarded for a period of 5 years and are renewable.

The Public Health Service has not established a stipend for the senior research fellowship; rather, it is intended that the university request an appropriate salary. Information and application blanks should be addressed to the Chief, Research Fellowship Branch, Division of Research Grants, National Institutes of Health, Bethesda 14, Md.

Proposed Legislation

Of the many bills introduced in Congress, some have a special relevance to science and education. A list of such bills introduced recently follows:

H Con Res 180. Express sense of Congress that Atomic Energy Commission establish an experimental reactor in state of Connecticut. Patterson (R Conn.) Joint Committee on Atomic Energy.

HR 8055. Promote the increase and diffusion of knowledge of polar regions, the Arctic and Antarctic. Bates (R Mass.) House Interior and Insular Affairs.

S 2293. Create a Federal Advisory Council of Health in Executive Office of the President in accordance with recommendations of Commission on Organization of Executive Branch of the Government, to evaluate and advise on reorganizing economy and to eliminate duplications of efforts and competition among several departments and agencies. Smith (R N.J.) Senate Labor and Public Welfare.

S 2304. Amend Public Health Service Act to provide an emergency 5-year program of grants and scholarships for postgraduate education in field of public health. Humphrey (D Minn.) Senate Labor and Public Works.

HR 8082. Authorize payment of compensation for certain losses suffered as a result of an outbreak of poliomyelitis following the early use of poliomyelitis vaccine. Hillings (R Calif.) House Judiciary.

HR 8112. Protect public health by amending Federal Food, Drug and Cosmetic Act to prohibit use in food of food additives which have not been adequately tested to establish their safety. Miller (R Neb.) House Interstate and Foreign Commerce.

H J Res 364. Provide for the freedom of the mind. Burdick (R N.D.) House Government Operations.

HR 8066. Authorize restoration of times taken from patents covering inventions whose practice was prevented or curtailed during certain emergency periods by service of the patent owner in the Armed Forces or by governmental controls. Hillings (R Calif.) House Judiciary.

Scientists in the News

THOMAS E. MURRAY, member of the U.S. Atomic Energy Commission, who was not reappointed when his term expired on 30 June [*Science* **125**, 1285 (28 June 1957)], has been hired by the Congressional Joint Committee on Atomic Energy to serve as a consultant. Rep. Carl T. Durham (D, N.C.), chairman of the Joint Committee, said the group wanted to utilize Murray's experience "for the advancement of this program and the security of the country," and that his appointment would "ensure that his eminent qualifications will be available to this Nation as it faces the formidable problems of atomic energy that lie ahead."

BRENTON R. LUTZ, former chairman of the department of biology at Boston University, was honored recently at a recognition dinner. He has retired after 43 years of teaching at the university. Speaker for the dinner was Shields Warren, who has been a colleague of Lutz in the field of atomic medicine and cancer research.

EMILIO SEGRE, professor of physics at the University of California, has been awarded the Cannizzaro medal, one of the highest honors of Italian science. This gold medal is conferred internationally every 5 years for outstanding work in science. The selection is made by the Accademia Nazionale dei Lincei (the Italian National Academy of Sciences).

Segre discovered element 43 and was codiscoverer of element 86. He was also a codiscoverer of the fissionability of plutonium. In 1955 he won international attention when he and his colleagues identified the antiproton.

In a special tribute to medicine, the School of Medicine of the University of Turin (Italy) recently conferred honorary medical degrees upon six scientists in different fields: GEORGE DE HEVESY of Stockholm, nuclear medicine; CHARLES B. HUGGINS of Chicago, hormonal treatment of cancer; FRANZ J. KALLMANN of New York, psychiatric genetics; JONAS E. SALK of Pittsburgh, poliomyelitis vaccine; PAUL SANTY of Lyons, cardiovascular (mediastinal) surgery; and ARTHUR STOLL of Monaco, alkaloid chemistry.

Recent appointments to the staff of General Atomic Division of General Dynamics Corporation's John Jay Hopkins Laboratory for Pure and Applied Science, San Diego, Calif., include:

CHARLES C. LOOMIS, a physicist who since 1950 has been a member of the physics staff of Los Alamos Scientific Laboratory;

CHARLES L. OXLEY, who joined the department of physics at the University of Chicago in 1953;

MARK S. NELKIN, research associate at Knolls Atomic Power Laboratory;

BRIAN DUNNE, former head of the shock-wave section of the atomic energy project at the University of California, Los Angeles;

REID D. CARLSON, a member of the analysis staff of the electromagnetic propagation division of Navy Electronics Laboratory, San Diego;

JOHN H. CAWLEY, who since 1949 has worked on electronic instrumentation and data analysis at Scripps Institution of Oceanography, La Jolla, Calif.;

WILLIAM A. COMPTON, chief engineer in the jet division of Thompson Products, Inc.

ROBERT G. FISHER, a senior engineer for Atomics International.

HORACE S. ISBELL, carbohydrate chemist, has been selected to head the organic chemistry section of the National Bureau of Standards. He succeeds W. HAROLD SMITH, who re-