This aim is, to our mind, the survival and progress of civilized society; and the analysis of the facts of the atomic age seems to show convincingly that this survival depends on the development of ethical standards at once broader and higher than practical men have been prepared to accept and live by—broader in that they have to embrace all mankind and not just a single nation; and higher, in that they have to renounce selfishness and the resort to naked power, not only in relations between individuals within a nation, but also between nations."

Sea Water Conversion

Progress toward low-cost conversion of sea water and brackish inland waters to fresh water was reported by Secretary of the Interior Douglas McKay in his annual report to the President and the Congress on the conversion program. McKay stated that:

"Estimates of the probable cost of large-scale conversion of sea water show that it is approaching the maximum existing costs of municipal water in the United States and is considerably below those of industrial water, although still several times higher than those of currently used irrigation supplies. At the same time economical improvement of brackish waters for many irrigation uses, which is inherently less expensive than conversion of sea water, is definitely in sight."

During the past year, eight additional research contracts were entered into, bringing the total to 30. In all, 25 projects were in progress during part or all of the year. With few exceptions, the contracts call for specific performance. Their duration generally is for a year or less. Investigations are being carried out on distillation and sealing; performance of membranes, both electric and osmotic; solar distillation; freezing processes; and several processes not yet fully explored, including chemical, physical, and electric.

U.S. Population, 1955

The population of the United States, including the Armed Forces overseas, reached 166,740,000 by the end of 1955. This marked an increase of 2,810,000 during the year, only 13,000 less than the record set in 1954. Thus, the high rate of population growth that began in 1946 has continued unabated for a decade. About 26 million people have been added to our population in the past 10 years, a larger number than in the preceding 21 years.

Infant mortality declined to a new low rate of 26.4 per 1000 live births. This is about 1½ percent below the previous minimum established the year before and 30 percent under the rate in 1945. The death rate for the population as a whole was about 9.3 per 1000, or only a shade above the all-time low of 9.2 recorded in 1954.

Scientists in the News

AHMED MUSTAFA, organic chemist and a professor at Cairo University, Cairo, Egypt, is spending a semester at Indiana University as a research associate under the auspices of the U.S. State Department. He is participating in a research program on organic sulfur chemistry.

During the next semester, Mustafa will be at the University of Rochester for research on photochemical aspects of organic sulfur chemistry. Mustafa has held guest fellowships at Massachusetts Institute of Technology, 1948–49, and at Columbia University, 1949–50.

CHARLES OBERLING, Roussy Institut anti-cancereuse, Ville Juif, Paris, France, is another of the participants in the decennial review Conference of the Tissue Culture Association that will take place in Woodstock, Vt., 8–12 Oct. [*Science* **122**, 32 (6 Jan. 1956)].

MORRIS M. LEIGHTON, chief emeritus of the Illinois State Geological Survey, was honored on 11 Oct. at a dinner commemorating the survey's 50th anniversary. He was presented with a bound volume of nearly 200 letters from the mineral industries of the state and from colleagues throughout the nation expressing their appreciation of his services and scientific contributions during the past 36 years.

HARRY F. OLSON, director of the acoustical and electromechanical research laboratory of the R.C.A. Laboratories, David Sarnoff Research Center, Princeton, N.J., has received the John Scott award for a 25-year-old invention —the velocity microphone. This instrument revolutionized the technique of sound pickup in the early 1930's and is still the standard microphone throughout the broadcasting and motion picture industries. The $1000 prize was presented during a dinner meeting of the Engineers' Club of Philadelphia. The award, which is administered by the city of Philadelphia, was established in 1816 by John Scott for "ingenious men and women who make useful inventions."

HANS J. TRURNIT, for more than 8 years staff scientist at the Medical Laboratories, Army Chemical Center, Md., has joined RIAS, Inc.

HENRY B. BIGELOW, oceanographer and professor emeritus of Harvard University, was honored on 24 Jan. on the occasion of the 25th anniversary of the Woods Hole Oceanographic Institution, which he helped to found. He served as its first director from 1930 to 1940.

A leatherbound copy of the *Bigelow Volume,* a collection of 48 original scientific contributions that was prepared by colleagues and former students, was presented to Bigelow by Columbus O'D. Iselin in a ceremony that took place in the Museum of Comparative Zoology at Harvard, where Bigelow has been working since the early 1900's. The 500-page honorary volume is a supplement to *Deep Sea Research* and will be distributed to all who subscribe to that periodical.

SAMUEL MARTIN will assume his new post as head of the department of medicine in the College of Medicine at the University of Florida on 1 Apr. He also will be coordinator of the J. Hillis Miller Health Center Study, which is supported by the Commonwealth Fund of New York.

At present Martin is associate professor of medicine and assistant professor of bacteriology at Duke University School of Medicine, where he was a Markle scholar from 1950 to 1955. He has conducted research on leukocytes and on tissue reaction to infection.

FRED HONKALA, associate professor of geology at Montana State University, was appointed chairman of the department on 5 Jan.

THOMAS COCKBURN, who has been in charge of research projects at the Communicable Disease Center, Atlanta, Ga., has accepted an appointment with the World Health Organization. During the next 2 years he will be epidemiologist to a communicable disease control project in Colombo, Ceylon. Cockburn left the United States early in January; communications should be sent care of the Ministry of Health, Colombo.

MARK W. ALLAM, dean of the School of Veterinary Medicine of the University of Pennsylvania, has left for Mexico as international consultant to the National School of Veterinary Medicine there. His assignment is being carried out under the auspices of the Pan American Sanitary Bureau, Regional Office of the World Health Organization. At the invitation of Latin American countries, a project is being established that is designed to assist in raising the teaching levels within the schools of veterinary medicine and to incorporate more practical aspects into the curricula.

MILTON A. CHAFFEE, former deputy director of systems at the Air Force Cambridge Research Center, Cambridge, Mass., has been appointed director of electronics and systems research at the Fairchild Camera and Instrument Corporation, Syosset, N.Y.

CHARLES P. HUTTRER, executive secretary of the physiology study section and of the morphology and genetics study section at the National Institutes of Health, has resigned from the latter to become consultant and executive secretary for the Pharmacology-Biochemistry Panel of the Cancer Chemotherapy National Service Center, National Cancer Institute, NIH.

HENRY F. PAYNE, who recently retired from the American Cyanamid Company, has been named research professor in charge of instruction and research on organic coatings in the department of chemical engineering, University of Florida.

JOHN E. MANGELSDORF has joined the missile systems division of Lockheed Aircraft Corporation, Van Nuys, Calif. He was previously a research fellow at the Laboratory of Aviation Psychology, Ohio State University, where he was on leave of absence from Dunlap and Associates, Inc., Stamford, Conn.

HERBERT F. MARCO, chairman of the mechanics division at the Air University Institute of Technology at Wright-Patterson Air Force Base, will become dean of engineering at South Dakota State College on 1 Mar. He succeeds H. M. Crothers, who had held the position for 30 years when he relinquished it last July. Crothers has continued on the State College staff as vice-president, a title he has held since 1947.

C. W. THORNTHWAITE, director of the Laboratory of Climatology, Seabrook, N.J., is to deliver a series of free evening lectures at the Wagner Free Institute of Science, Philadelphia. The three lectures, which will be on the general subject of "Climate and the modern world," will be given on 12, 19, and 26 Apr.

LAURETTA BENDER, senior psychiatrist in charge of the children's service at Bellevue Hospital, New York, for 21 years, has been appointed principal research scientist in child psychiatry for the New York State Department of Mental Hygiene. The function of this new position will be to study adolescents and children and to serve as a consultant in child psychiatry to the department as a whole.

JOSEPH R. HAUN, formerly plant physiologist for weed control research with the Grasselli Chemicals Department of E. I. du Pont de Nemours and Company, Wilmington, Del., has been named director of the newly established weed control division of Insect Control and Research, Inc., Baltimore, Md., a firm of consulting entomologists. For the past 4 years his work with Du Pont has been concerned primarily with the development of the substituted urea herbicides.

ROBERT N. ISBELL, a colonel and a chemist with the Air Research and Development Command Headquarters, Baltimore, Md., has retired after more than 30 years of service. He was instrumental in developing from field military data a theory that electric energy might be used directly from controlled atomic reactions.

For the past 8 years Isbell has worked in the special weapons field in several different capacities: as chief of the radiological defense division of the Armed Forces Special Weapons Project at the Pentagon, and as chief of the weapons effects division of the Armed Forces Special Weapons Project; as director of nuclear applications and chief of the Atomic Operations Division at ARDC Headquarters; and, in 1948, as commanding officer of the Air Radiological Unit, Operation Sandstone, Eniwetok, Marshall Islands.

After serving in World War I, Isbell returned to civilian life and entered William Jewell College, where he received his B.A. degree in 1923. He attended Yale University from 1924 to 1926 and received his Ph.D. in chemistry from the University of Wisconsin in 1931. He has taught at Yale, Connecticut College of Pharmacy, and from 1931 to 1941 he was an associate professor of chemistry at Wake Forest College.

ROBERT S. HARRIS, professor of biochemistry of nutrition in the department of food technology at Massachusetts Institute of Technology, has been awarded the highest scientific honor that Cuba bestows—the Carlos J. Finlay award. ROBERT R. WILLIAMS of the Research Corporation, New York, shared honors with Harris for improving the nutrition of the Cuban people.

M. V. NEVITT, former head of the metallurgical engineering department at Virginia Polytechnic Institute, has resigned to join the staff of Argonne National Laboratory.

SAMUEL RENSHAW, professor of experimental psychology at Ohio State University, who served as academic director of the Navy Recognition Training School at Ohio State during World War II, will receive the Navy Distinguished Public Service award for his "outstanding contribution to the Navy in the research and development of the visual recognition training program."

Some 4000 officers were trained in the Renshaw method of visual perception, enabling them to identify approaching surface and air craft speedily. It has been estimated that approximately 285,000 preflight cadets benefited from this training, and officers trained in visual perception under Renshaw were aboard almost every Navy ship after 1943.

REED A. GRAY, plant physiologist for Merck and Company, Inc., has won the top Glycerine Research award of $1000 and an honor plaque for research that showed that incorporating glycerine in streptomycin formulations increased the absorption of the antibiotic by plants and enhanced its effectiveness against the common bacterial blight of beans, a blight that takes an annual toll of crops estimated at $6 million.

EUGENE P. KENNEDY, professor of biochemistry at the University of Chicago, won the $300 second award for his study of the biosynthesis of phospholipids, which included the role of glycerine derivatives as precursors of these compounds. The third award of $200 went to KARL H. LAUER, chemistry professor at the University of Alabama, for development of a process using slaked lime in glycerine-water solutions to convert sodium sulfate into caustic soda. Presentation of the awards was made at a luncheon in New York on 26 Jan. during the annual meeting of the Glycerine Producers' Association.

K. L. STELLMACHER, professor of mathematics at the University of Göttingen, Göttingen, Germany, will conduct a seminar between 2 and 23 May at the University of Maryland on the "Integration of general linear hyperbolic differential equations with application to Huygens' principle."

FREDERICK M. BECKET, pioneer metallurgist, has been honored by the establishment of the F. M. Becket Memorial award. The award, which is to be administered by the Electrochemical Society, is in the form of an annual scholarship aimed at interesting college students in the field of high-temperature electric furnace operations. The fund for the award was presented to the society by the Electro Metallurgical Company, a division of the Union Carbide and Carbon Corporation.

JOHN F. TAYLOR, chairman of the University of Louisville biochemistry department, is on leave of absence from that post to serve as visiting professor of biochemistry at the Physiological Institute of the University of Oslo, Oslo, Norway.

THOMAS B. NOLAN, since 1944 assistant director of the U.S. Geological Survey, has been named by President Eisenhower to succeed William E. Wrather as director of the Survey. The appointment awaits Senate approval.

JONATHAN E. RHOADS, professor of surgery and surgical research in the University of Pennsylvania School of Medicine and professor of surgery in the Graduate School of Medicine, was elected provost of the university on 17 Jan.

HAROLD C. UREY, distinguished service professor of chemistry at the University of Chicago, has been named Eastman professor at Oxford University, Oxford, England, for the 1956–57 academic year. The chair was founded in 1929 by George Eastman to send senior American scholars to lecture at Oxford. The Association of American Rhodes Scholars administers the fund and assists in making the annual selection.

Urey, who was the Nobel prize winner in chemistry in 1934, has specialized in the structure of atoms and molecules, thermodynamic properties of gases, and separation of isotopes. He discovered the hydrogen atom of atomic weight 2 and conducted research for the production of heavy water and U-235.

Recent Deaths

HENRY M. CRANE, New York, N.Y.; 81; consulting engineer to General Motors Corporation; a past president of the Society of Automotive Engineers who helped to prepare the standard American aeronautic safety code in 1926; 21 Jan.

JAMES E. DAVENPORT, New York, N.Y.; 68; retired vice president for engineering development and research of the American Locomotive Company; 24 Jan.

ADOLPH EICHHORN, Pearl River, N.Y.; 82; authority on animal husbandry; consultant on the veterinary medicine research staff of the Lederle Laboratories; 23 Jan.

RAPHAEL GINZBERG, Tomah, Wis.; 60; authority on diseases of the aged; chief of the geriatrics department of the Veterans Administration Hospital at Tomah, Wis.; 19 Jan.

ROYAL S. HAYNES, New York, N.Y.; 78; retired specialist in pediatrics; former clinical professor of pediatrics at College of Physicians and Surgeons, Columbia University; 19 Jan.

ROBERT LOWY, Philadelphia, Pa.; 72; hydraulic engineer; special lecturer at the University of Pennsylvania and a former associate professor at Pennsylvania Military College; 21 Jan.

HARRY W. ORR, Stillwater, Okla.; 60; dean of the School of Veterinary Medicine of Oklahoma A. & M. College; 14 Jan.

ALEXANDER O. RANKINE, Hampton, England; 74; emeritus professor of physics at the Imperial College of Science and Technology; former chief physicist for the Anglo-Iranian Oil Company; World War II worker in the Petroleum Warfare Department on dissipation of fog on airfields; 19 Jan.

BLAKE VAN LEER, Atlanta, Ga.; 62; hydraulic engineer and president of the Georgia Institute of Technology; 23 Jan.

Education

■ S. F. Posen, president of Beltone Hearing Aid Company, Chicago, has given $7000 to Northwestern University for a new soundproof hearing laboratory. The laboratory will make it possible to conduct research on various tests for the diagnosis of hearing impairments. The soundproof testing chamber is being constructed in the department of otolaryngology at the university's Medical Center in Chicago.

■ The 25th Venereal Disease Postgraduate Course for physicians sponsored by the University of Washington School of Medicine and the Public Health Service will be given in Seattle, Wash., 19–23 Mar. The course is designed to acquaint the practitioner with the latest developments in diagnosis, treatment, and management of the venereal diseases. The faculty for the course, which is accredited by the American Academy of General Practice, will be drawn from various universities, the Public Health Service, and from among authorities in the field.

No tuition will be charged. Applications for admission are to be sent to the University of Washington School of Medicine, Division of Postgraduate Medical Training, Harbor View Hospital Annex, 325 Ninth Ave., Seattle 4, Wash.

■ A new full-time program of graduate study in physics will be started next fall at Western Reserve University. This marks the first time in the history of the university that work leading to the Ph.D. degree in physics has been offered.

Although most of the research in physics will be carried out in the university's physics laboratory, advanced graduate students in certain fields will be able to take advantage of the unusual research facilities in nuclear physics and chemistry at Argonne National Laboratory, Lemont, Ill., to complete their dissertations *in absentia*. Western Reserve has also announced an expanded program of studies in physics at the undergraduate level, including the regular offering of all advanced courses in physics every year.

■ The North Carolina State College School of Engineering has added a new degree to its curriculum—bachelor of metallurgical engineering.

Grants, Fellowships, and Awards

■ Negotiations for the extension of the Fulbright exchange program with India have just been completed. Application forms may be obtained from the Conference Board of Associate Research Councils, Committee on International Exchange of Persons, 2101 Constitution Ave. NW, Washington 25, D.C.

A booklet describing in detail the operation of the program will be sent out with forms. In view of the lateness of the announcement in relation to the beginning of the 1956–57 academic year in India, grantees will not be expected to arrive in India until July or August. To insure consideration applications should be postmarked *no later than 20 Feb.*

■ The 23rd annual program of Tau Beta Pi fellowships for graduate study in engineering have been announced. These include the Charles H. Spencer fellowship, the Louis Allis Company–Tau Beta Pi fellowship, and the Honeywell–Tau Beta Pi fellowship.

Each award is for $1200, payable in ten monthly installments. For additional information, write to Paul H. Robbins, 1121 15 St. NW, Washington 5, D.C.

■ The Grass Foundation for research in neurophysiology will provide one or two fellowships for work at the Marine Biological Laboratory at Woods Hole, Mass., during the summer of 1956. The stipend will range from $500 to $1000, depending upon the financial needs of the candidate. Two candidates may apply jointly to work together with stipends of $500 each. The fellowships are designed for young investigators in the predoctoral or early postdoctoral stage.

Applications may consist of a brief letter, preferably from some senior investigator who knows the candidate well, describing his qualifications and giving a brief account of his plans for research and how he would use the fellowship. Reprints of published work will also be helpful to the selection committee. Let-