

recipients who later become teachers. Again, this is a substitute for the ultimately desirable goal of paying teachers salaries commensurate with their abilities and worth. But it is unrealistic to expect immediate adoption of such a salary scale. In the meantime, the opportunity to cancel 20 per cent of the total loan for each year spent in teaching should aid the schools greatly in securing additional teachers.

"The third function of a scholarship program is to encourage and reward scholarship of high quality. This is the function that should be given greatest emphasis. A scholarship of \$500 or \$1000 a year for four years is a substantial award. A national scholarship program is a sign of national interest in academic excellence. Both the winners and those who compete but fail to win will be more likely to go to college because of their heightened interest and application. In order to make the program most effective in improving scholarship and raising educational standards, I suggest that scholarship winners be selected on the basis of a national examination that emphasizes the fields of subject matter knowledge that are of most importance as a basis for good college work. Administration of these examinations can be local and there can be state quotas, but the national character of the examinations will enhance their prestige and motivational value.

"Senator Pastore has introduced a bill, S.1021, that proposes to offer scholarships to students who make sufficiently high scores on an examination covering high school mathematics. In earlier testimony, Professor I. I. Rabi has endorsed this idea. It is an excellent idea, for it would place clear emphasis upon the universal importance of a sound knowledge of mathematics whatever the field of specialization the student later entered. The idea can well be extended, however, so that scholarship winners would be selected on the basis of an examination covering mathematics, English, and perhaps a modern foreign language and science. Such subjects as these are the core of a good background for college work. They are the subjects we want to emphasize in the education of bright students. A scholarship program that placed such clear stress on these fundamental fields of knowledge would motivate students to do well in their high school work, would offer tangible proof to teachers, students, and parents of the importance attached to the basic college preparatory subjects in the high school programs of bright students, and would leave the students completely free to choose their own fields of specialization after they entered college. Here is a method by which a scholarship program can both motivate individual students to do well in their work, and at the same

time encourage teachers, school administrators, and school boards to provide high quality instruction in the subjects that are of greatest value to bright students.

"In conclusion, I would like to commend the wording of the statement of purposes of S.3187. I refer particularly to the words, '... assure the intellectual preeminence of the United States. . . .' This is a noble objective. I hope that we mean it, and that we enact legislation that will assure the intellectual preeminence of the United States."

A Security Case in Britain

A British scientist suspended from his position on security risk charges has won his appeal against dismissal and has returned to work. According to a recent Reuters dispatch from London, "Mr. Z" was suspended 4 days before Christmas because he was judged to be "susceptible to Communist pressure." A special investigation officer had reported, after a routine interview to which all civil servants engaged on secret work are periodically subjected, that Mr. Z had "extreme pro-Russian sympathies." Listed against him were the following statements he made to the investigating officer's questions: that what was being done in Hungary by the Russians was no worse than the British government was doing in Cyprus; that there was no more repression in Russia than in other countries; and that Russia was living "in a world opposed to her."

Mr. Z, who was on full pay during his suspension, appealed to the three advisers appointed by the Prime Minister to hear appeals against security dismissal cases. It is reported that he denied that he was pro-Russian and pointed out that he had merely expressed his views freely and honestly in answer to the questions put to him.

Atmosphere Entry Simulator

A new laboratory device capable of simulating the extremely high temperatures and thermal stresses encountered by missiles and space craft flying at great speeds in the earth's atmosphere is announced in the annual report of the National Advisory Committee for Aeronautics. The NACA calculates that a model only 0.36 inches in diameter and weighing 0.005 pound can simulate the reentry flight of a full-scale 4000-mile range missile of diameter 3 feet and weight 5000 pounds.

The atmosphere entry simulator was designed by Alfred J. Eggers, Jr., of the NACA Ames Aeronautical Laboratory, Moffett Field, Calif. Another Ames scientist, H. Julian Allen, con-

ceived the principle of blunt shaping of missile nose cones as a means of minimizing the heating factor.

The main element of the simulator is a trumpet-shaped nozzle through which air at supersonic speed undergoes changes in density from one end of a 20-foot passage to the other. The missile model is launched from a high velocity gun against the air stream. While flying through the nozzle test chamber, the model encounters air of increasing density, thus duplicating the flight course of a full-scale missile. The simulator can provide a variation in density over a range of 100,000 feet. It is used at altitudes up to a maximum of 200,000 feet.

A pilot model of the simulator is in use at the Ames Laboratory and a larger version is nearing completion. The NACA reports that the new reentry simulator will be in operation later this year for use on problems related to missile and space craft research.

News Briefs

At a ceremony last month at Bonn University, the German Council of Arts and Sciences (*Wissenschaftsrat*) was officially established. According to an agreement made between the Federal Government and the states, this council is to coordinate all West German plans for the advancement of the arts and sciences, to draw up a program of matters to be given attention, and to submit recommendations about how available funds are to be used.

* * *

The United States will operate four scientific stations in Antarctica in 1959. Rear Admiral George Dufek announced recently that the South Pole, Byrd, Hallett, and McMurdo Sound stations had been selected for further operations at the conclusion of the International Geophysical Year. Three bases will be discontinued: Little America, Ellsworth, and Wilkes. Little America, however, will be used as a weather-reporting station, and its snow runway will be maintained as an emergency landing strip for flights to the McMurdo Sound and Byrd stations.

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The story of Archimedes, Greek mathematician, physicist, and inventor who discovered the underlying principle of specific gravity, will be seen on Telephone Time's *Man of Principle* over ABC-TV on 25 March at 9:30 P.M. EST and PST (8:30 P.M. other time zones).

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The National Merit Scholarship Corporation has announced that future Merit Scholarship competitions will begin with the testing of high school juniors rather than seniors. Thus, the 1958-59 program will begin this spring with a nationwide

examination for second-semester juniors and first-semester seniors on 29 April 1958. Three previous national competitions have started with fall examinations, administered to members of the senior classes. The new junior-year test will enable students to understand more about their academic strengths and weaknesses in time to apply the information in choosing courses in the senior year.

Scientists in the News

CLAY G. HUFF, head of the division of parasitology in the Naval Medical Research Institute, Bethesda, Md., was awarded the Navy Distinguished Civilian Service Award at ceremonies in the office of the Assistant Secretary of the Navy, Fred A. Bantz, on 10 February. Huff's citation read:

"For exceptional and exemplary contributions which have added significantly to the prestige of naval medical research in the field of parasitology. You have advanced basic research on the tissue phase of the malarial parasite, particularly the development of the far-reaching implication of the exoerythrocytic stages on the important phenomena of host and parasite susceptibility and immunity. You have established yourself as a world authority on the morphology of exoerythrocytic stages of plasmodia from a wide variety of both warm and cold-blooded vertebrate hosts. Your distinguished achievements in the tissue phase of the malarial parasite are a matter of wide implication to military medicine and to the civilian populace since they represent milestones in the field of medical parasitology and tropical medicine."

JOHN R. DUNNING, dean of the Columbia University Engineering School and the first American scientist to demonstrate uranium fission, was one of the recipients of the annual Stevens Honor Award at a recent banquet of the Alumni Association of Stevens Institute of Technology.

GEORGE GAYLORD SIMPSON has asked to be relieved of his administrative duties as chairman of the department of geology and paleontology at the American Museum of Natural History in order to devote his time more fully to research, teaching, and his position as curator of fossil mammals and birds. EDWIN H. COLBERT, curator of fossil reptiles and amphibians, who has been acting for Simpson, has been appointed chairman. In August 1956, while on an expedition to Brazil, Simpson was the victim of a serious accident, as a result of which his activities have been necessarily limited.

ROBERT BROWN, botanist of Oxford University, will lecture in May at the University of Texas on cell growth and differentiation.

Recipients of the sixth annual Glycerine Research Awards of the Glycerine Producers Association are JAMES TULLIS of the Blood Characterization and Preservation Laboratory, Jamaica Plain, Mass., first award of \$1000 for his work in the glycerine freezing of human blood for long-term preservation; GUIDO MARINETTI, assistant professor of biochemistry at the University of Rochester School of Medicine and Dentistry, second award of \$300 for work on the analysis, biosynthesis, and chemical structure of phospholipids, derivatives of glycerine found in the tissue of living cells; and HENRY R. SALLANS and C. G. YOUNGS of the Prairie Regional Laboratory, National Research Council, Saskatoon, Saskatchewan, Canada, third award of \$200 for their work on the glyceride composition of fats.

ARTHUR S. TAMKIN, formerly a psychologist with the Veterans Administration, has been appointed director of research at the Columbus Receiving Hospital for Children, Columbus, Ohio. He is conducting a program of research on the evaluation of psychiatric treatment for the emotionally disturbed child.

JAMES A. SHANNON, director of the National Institutes of Health, received the New York University College of Medicine Alumni Association's 1958 scientific award on 22 February at ceremonies dedicating the new Alumni Hall of New York University-Bellevue Medical Center. He was cited for "outstanding achievements in the fields of renal physiology, malarial control and national administration of medical research."

NEAL MILLER, James Rowland Angell professor of psychology at Yale University, has been appointed chairman of the Division of Anthropology and Psychology of the National Academy of Sciences-National Research Council, effective 1 July.

SVEND M. CLEMMESSEN of Copenhagen, Denmark, will be the first Louis J. Horowitz visiting professor of physical medicine and rehabilitation at New York University-Bellevue Medical Center's College of Medicine. Clemmessen, who will be at the Medical Center during the month of April, is in charge of the department of physical medicine and rheumatology, Kommunehospitalet, Copenhagen, and is a lecturer at the University of Copenhagen.

GEORGE H. NELSON has been named president of Law-Barrow-Agee Laboratories, Inc., of Atlanta, Ga., and the firm has been renamed Law Engineering Testing Company. THOMAS C. LAW, president and founder of the company, will become chairman of the board. Nelson has been executive vice president since the company's founding in 1948.

Recent Deaths

COMFORT A. ADAMS, Philadelphia, Pa.; 89; Lawrence professor of engineering at Harvard from 1914 until 1936, dean of its school of engineering in 1919, and Gordon McKay professor of electrical engineering in 1935-36; 22 Feb.

HENRYK ARCTOWSKI, Washington, D.C.; 86; specialist on world weather and retired research associate, Smithsonian Institution; before coming to U.S. in 1939, head of the department of meteorology and climatology at the University of Lvov, Poland; 22 Feb.

EGBERT F. BULLENE, San Francisco, Calif.; 63; retired major general and former chief of the Army's Chemical Corps; 22 Feb.

JOHN G. B. CASTOR, San Francisco, Calif.; 49; associate professor of enology and associate microbiologist in the Experiment Station of the College of Agriculture at Davis; 4 Jan.

CHARLES K. DEMING, New Haven, Conn.; 64; surgeon with the Yale Medical School and the Department of University Health; specialist in industrial medicine; 21 Feb.

ABRAHAM HOFFMAN, Fort Lauderdale, Fla.; 83; professor of orthodontics at the University of Buffalo from 1907 to 1919, head of the orthodontics department at New York University from 1924 to 1927, and head of the orthodontics department at the Northwestern University Dental School from 1927 to 1939; 24 Feb.

THOMAS H. HOGG, Toronto, Ont., Canada; 73; electrical engineer and former chairman of the Hydro-Electric Power Commission of Ontario; 25 Feb.

WILLIAM F. LORENZ, Madison, Wis.; 76; professor emeritus of psychiatry of the University of Wisconsin; pioneer in the use of carbon dioxide gas for the treatment of psychoses; 19 Feb.

FREDERICK A. WATERMAN, Tucson, Ariz.; 53; assistant professor of zoology at the University of Arizona; formerly associate professor of biology at Wayne University; 30 Dec.

THOMAS W. STEVENSON, JR., Mount Kisco, N.Y.; 53; noted plastic surgeon who specialized in restoring hands; professor of clinical surgery at Columbia University's College of Physicians and Surgeons; 22 Feb.