Austria is planning a mission of archaeologists. Belgium has offered 1,000,000 Belgian francs. Belgium also has offered to send three experts—an Egyptologist and two architects—and is now holding an exhibit of Egyptian art for the benefit of the campaign.

The French Society for Egyptology is collecting contributions for the campaign.

France will send architects, engineers, and specialists in the fields of ancient inscriptions, prehistory and anthropology. France is also considering offering the services of its National Geographic Institute in the field of photogrammetry.

India has promised the assistance of several experts. Poland has offered the assistance of a soil expert to join UNESCO's preliminary study mission.

Spain is ready to send specialists in prehistory and Coptic art. Spain would also make available a river boat equipped for scientific investigations. From the United Kingdom, the Egypt Exploration Society is already working at the Buhen site in Sudan near the Egyptian border.

A joint mission to excavate in Egyptian Nubia is being planned in the United States by the University of Pennsylvania Museum and the Peabody Museum of Yale University. Another American project is a five-year program by the Oriental Institute of the University of Chicago for investigation, excavations and documentation in Egyptian and Sudanese Nubia.

And one U. S. businessman has offered to buy the temple of Dendur and move it to Indiana.

• Science News Letter, 78:74 July 30, 1960

ROCKETS AND MISSILES

Atlas Will Be Simpler And Lighter in Design

THE ADVANCED "E" SERIES Atlas ICBM propulsion system will have a 389,000-pound thrust at sea level. The U. S. Air Force's Air Research and Development Command reported that it will be lighter and simpler in design than present Atlas missile engines. Designated MA-3, the new Atlas power plant is produced by the Rocketdyne Division, North American Aviation Corp., and has been tested at their facilities in the Santa Susanna Mountains.

• Science News Letter, 78:75 July 30, 1960

PHYSICS

Million-Dollar Reactor To Test Radiation

A NEW MILLION-DOLLAR NUCLEAR REACTOR to test the effects of radiation on military equipment will be installed next year in the Forest Glen, Md., section of Walter Reed Army Medical Center. It will produce intense, self-limiting pulses of nuclear radiation to which samples will be exposed repeatedly for short periods.

General Dynamics' General Atomic Division of San Diego, Calif., will design and construct both the pulsed TRIGA (Training Research Isotope (Production) General Atomic) reactor and associated test facilities.

• Science News Letter, 78:75 July 30, 1960

PUBLIC HEALTH

Test Civil Defense Shelter

IF AN ATOMIC BOMB should explode in the area of Long Island, N. Y., the laboratory building of the Brookhaven National Laboratory at Upton will provide an important civil defense shelter.

Preliminary tests indicate that in the Laboratory's basement, outside fallout contamination will be reduced 150 to 200 times by the brick and concrete, Dr. Robert A. Conard, civil defense liaison officer for the Brookhaven Medical Center, told SCIENCE SERVICE.

The basement will house emergency medical supplies and equipment, including several beds. Its area of more than 100,000 square feet can accommodate several hundred persons and necessary supplies.

The atomic and medical research center was exposed to a pattern of simulated fallout such as was used to test the Atomic Energy Commission Building in Germantown, Md. A radioactive slug of 200 curies of cobalt-60 was pumped through special plastic tubing on the surrounding grounds and the roof of the Laboratory building. Human exposure to this amount of cobalt-60 can be dangerous.

From 80% to 90% of the contamination that reached the basement from the simulated fallout came from the flat, gravel-covered roof.

Dr. Conard said studies show that this type of roof, common to modern buildings, yields the greatest concentration of radioactive contamination. A sloping-type roof, from which fallout can wash down, affords the greatest protection from radiation hazards. It would appear that consideration of radiation from fallout did not play a major role in the design of the hospital and medical buildings at Brookhaven.

The more than half-mile-long structure in which the atom-smashing alternate gradient synchrotron is housed underground also would provide shelter protection from a bomb explosion, Dr. Conard said. At the present time, however, civil defense plans do not include housing and equipment provisions for this extensive area.

• Science News Letter, 78:75 July 30, 1960

TECHNOLOGY

Can Cut Highway Toll

A SCIENTIFIC ATTACK on the automobile accident problem would reduce deaths and serious injuries by one-half in ten years.

Dr. Irwin D. J. Bross, chief of the department of statistics, Roswell Park Memorial Institute, Buffalo, N. Y., said this was a realistic target.

Emphasizing the need for cooperation of automobile manufacturers, legislators, law enforcement agencies, safety groups, scientists and the general public, Dr. Bross said, "If the public realized how close we are to a major reduction in the highway toll, the cooperation would be forthcoming."

The first step in attacking the problem is the collection of detailed scientific reports on accident circumstances and resulting injuries of persons involved in highway accidents, Dr. Bross said. He cited the Cornell Automotive Crash Injury Research Program (ACIR) as one that provided adequate information for a genuine scientific study of the accident-injury problem.

After establishing the chain of events leading up to an accident, Dr. Bross advised preventive measures. These include car design changes, commonly called "hardware."

Better door locks are still needed because the "modified door locks" that were successful in laboratories have been only about 25% better in holding doors shut in roll-over accidents.

Dr. Bross said one reason for this only slight improvement was that the hard-top styling trend, which came in about the same time as the modified door locks, weakened the top support and permitted greater deformation of the frame in the case of roll-over accidents.

Getting rid of pointed objects, projections, sharp bends in instrument panels and other hazards in the car interior would constitute what Dr. Bross calls a "delethalization" program.

Dr. Bross reported in Public Health Reports, 75:573, 1960, that highway design and traffic control devices also provide promising preventive measures.

• Science News Letter, 78:75 July 30, 1960

TECHNOLOGY

"Atomic" Incinerator Safely Disposes of Waste

SAFER AND MORE ECONOMICAL waste disposal is being accomplished by an "atomic incinerator" installed by the General Electric Company in its nuclear equipment plant.

Before its installation this spring, burnable contaminated material at the San Jose, Calif., plant was encased in concrete and dumped in special burial grounds. With the incinerator, in one hour 100 pounds of waste material can be reduced to a small pile of ashes which may be disposed of easily, thus cutting disposal costs by 75%, according to company spokesmen.

Designed by GE's Atomic Power Equipment Department, the incinerator has an automatic safety shut-off and is equipped with a filtering system which prevents the escape of radioactive particles from the high-temperature furnace box.

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