GENERAL SCIENCE

Puerto Rico to Hold Fair

Puerto Rico plans to establish a science fair program, thus joining what is becoming an international enterprise to encourage science-minded students.

➤ PUERTO RICO is joining the science fair movement to encourage and stimulate science interest and ability among Puerto Rican students.

A conference of 300 educators has decided that every school in the country should hold a science fair and that all large cities should organize city-wide fairs. Eight regional fairs are planned, with proportional representation from each competing in a state fair. All of Puerto Rico's universities and colleges will actively support the science fairs.

The conference recommended the Puerto Rican state fair become affiliated with the National Science Fair as soon as possible, in order that the top Puerto Rican Science Fair finalists and their teachers may meet with outstanding science students of the continent and with world famous scientists. It was felt this opportunity would be valuable in broadening perspective and in benefiting from the experience of older science fair programs. An unsalaried director of the state fair was also recommended.

The conference was arranged by the Oak Ridge Institute of Nuclear Studies and the Department of Education, Hato Rey, Puerto Rico.

Joseph H. Kraus, coordinator of the National Science Fair, told the meeting in Hato Rey that last spring more than 2,000,000 persons saw some 250,000 exhibits at science fairs leading to the National Science Fair.

"Studies made of the finalists from all over the United States, who exhibited in the first six National Science Fairs, show that each year up to 88% of these 14- to 19-year-old students actually are making science or engineering their careers," said Mr. Kraus. "Teachers, university staff, newspapers, industries, and community and national agencies are now working together in a dedicated effort to provide unprecedented opportunity and encouragement for young scientists."

Assistance to Puerto Rico's youth program is being offered by many agencies, including the President's Committee for Scientists and Engineers, the 20 organizations and activities cooperating in National Science Youth Month, and SCIENCE SERVICE which administers Science Clubs of America, the National Science Fair, and the Science Talent Search for the Westinghouse Science Scholarships and Awards, from its headquarters in Washington, D. C.

Science News Letter, November 23, 1957

RARE DINOSAUR EGG—A rare complete dinosaur egg, weighing 20 pounds, is a gift to Harvard University's Museum of Comparative Zoology from the city of Aix-en-Provence, France. (See SNL, May 4, p. 275.) The egg, laid about 75,000,000 years ago by a hypselosaurus, is held by Prof. Alfred S. Romer, director of the Museum. It can be compared with the very large egg of the now extinct Aepyornis, *or elephant-bird of Madagascar, and with the ordinary ostrich egg shown in the middle. Harvard also has a 200,000,000-year-old reptile egg of unknown parentage which was found in 1934 in Archer County, Tex.*

SEISMOLOGY

H-Bomb Tests Help Seismologists

➤ FUTURE HYDROGEN bomb test explosions could give important information on the earth's inner structure, if the time and exact location of the detonations were announced in advance.

Then seismologists, using very sensitive instruments, could tune in on the rumblings resulting from the blasts. From their records they could draw a much more precise picture of the earth's core than now possible.

Dr. K. E. Bullen, professor of applied mathematics at the University of Sydney, Australia, outlined the presently accepted picture of the earth's structure at a National Academy of Sciences lecture.

The topmost layer, with which every one is familiar, is called the crust and is 25 miles thick. Below the crust is the mantle, which is about 1,800 miles in depth. Below this is the core, which is divided into an outer core some 1,400 miles thick and the inner core with a radius of 800 miles.

The rigidity, which, roughly speaking, measures the extent to which a material is solid rather than fluid, at the bottom of the mantle is about four times that of steel at ordinary pressure.

Evidence showing the central core's size was found by Dr. Bullen and Dr. T. N. Burke-Gaffney of Riverview College Observatory, New South Wales, from records of the earth's shakings when the U. S. set off four hydrogen bomb explosions in the Pacific in 1954.

Dr. Bullen said the pressure at the earth's center is nearly 4,000,000 times that at the surface.

He said one difficulty in learning about the inner and outer cores is that the time and exact location of natural earthquakes is not precisely known, which limits the picture of earth's interior that can be drawn from seismic records. Hydrogen bomb explosions give seismologists a chance to conduct controlled experiments, using the entire planet as their laboratory.

Science News Letter, November 23, 1957