



JAP CYCLOTRON—Japanese scientists and laboratory workers at the Institute for Physical Research, Tokyo, with the cyclotron they built.

PHYSICS

Japs Have Cyclotron

Is copy of the one at the University of California. Scientists in Tokyo in 1940 discovered neptunium, one of new elements used in work on our atomic bomb.

► THE JAPANESE, as well as the Germans, during the war had their own program of atomic research, similar to the program that in the United States led to the development of the new atomic bomb. In 1940, Japanese scientists announced discovery of element 93, one of the new elements used in making the atomic bomb in the United States.

In 1938, in Tokyo, a giant cyclotron was nearing completion which was a duplicate of the one under construction at the University of California. It was intended to be one of the largest and most powerful in the world.

A 210-ton electromagnet had been installed, marking the halfway point in the construction of the cyclotron. It was expected to develop 20,000,000 volts.

Money for the Japanese atom smasher was made available by the Society for the Advancement of Science when an older 3,000,000-volt cyclotron was declared inadequate for their atomic research.

In charge of the new cyclotron was Dr. Yoshio Nishina, of the Institute of Physical and Chemical Research in Tokyo. Dr. Nishina was one of a research team of five Japanese scientists who in June, 1940, announced the manufacture of the element 93, now named neptunium. Other scientists in the group were T. Yasaki, H. Ezoe, K. Kimura and M. Ikawa.

They made their neptunium by bombardment of uranium with fast neutrons. Announcement of this Japanese achievement was made in the United States in the same issue of the *Physical Review* which contained details of the discovery in Berkeley, Calif., of the element 94, now called plutonium, and positive identification of the element 93.

Science News Letter, September 1, 1945

The value of *vitamin C* in tomatoes closely parallels the amount of sunlight received by the plant for about two weeks before harvest.

GENERAL SCIENCE

Make Knowledge Available To People, It Is Advised

► SCIENTISTS and other educators were advised to come out of their ivory towers and make their teachings available to all the people, in an address by Dr. William Seifriz, of the University of Pennsylvania, speaking in New York before the Sixth Conference on Science, Philosophy and Religion.

American scientists, he said, have been inclined to feel that the publicizing of the teachings of scholars is undignified and that to leave the ivory tower for the world of ordinary people is a betrayal of one's class.

"Education," he said, "must be both liberal and free, free of influence from the outside and free of propaganda from within, and above all free of political and financial control. These basic principles need not deprive education of the right to sell its wares.

"When one considers the tremendous efforts made and moneys spent by big business, by politics, by the press, and by religion to maintain position and increase power, the university becomes a very feeble competitor indeed.

"I do not recommend pressure advertising, but greater effort should be made to bring the teachings of the university to the people. This can best be done by having the people come to the university, but the university can also go to the people, through the press and the lecture."

Science News Letter, September 1, 1945

PUBLIC HEALTH

Americans Gave 50% More To Polio Fund This Year

► THE AMERICAN people gave 50% more money to the National Foundation for Infantile Paralysis in 1945 than in 1944.

Contributions to the 1945 March of Dimes totalled \$16,589,874. The 1944 contributions totalled \$10,973,491, Basil O'Connor announced.

Though many may think of the foundation only during epidemic seasons and at the time of the March of Dimes, its work and that of its chapters goes on the year round. Half of the funds raised are used to finance research and a program of education to train new polio fighters. The other half is retained for services to infantile paralysis victims in and out of epidemic seasons.

Science News Letter, September 1, 1945