now are married—most of them to scientists or engineers. Homemaking and child care occupy the full time of a good share of these women. The rest combine marriage with their careers.

The judges of the Science Talent Search are Dr. Rex E. Buxton, Washington psychiatrist; Dr. Harold A. Edgerton, vice-president, Richardson, Bellows, Henry and Co., New York City, and Dr. Steuart H. Britt, vice-president and director of research, Needham, Louis and Brorby, Inc., Chicago. The latter two have designed the science aptitude examination for each of the Science Talent Searches.

High School seniors in some states will have a double chance to win scholarships through state Science Talent Searches run concurrently with the national competition and by special arrangement with Science Clubs of America.

In 1957 the following states will hold these competitions: Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Mexico, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia and Wisconsin.

For complete details of the national and state Science Talent Searches, write to Science Clubs of America, 1719 N St., N.W., Washington 6, D. C.

Science News Letter, November 3, 1956

CHEMISTRY

Next: Four New Elements

➤ ELEMENTS up through 105 may be created and identified in the next few years. These elements probably existed at the birth of the earth but, decaying through radioactivity, became extinct within minutes or seconds.

The hopes for recreating, briefly, these extinct "dinosaurs of matter" were described by Dr. Glenn T. Seaborg, the University of California Nobel Laureate who is the co-discoverer of plutonium, element 94, and all the heavier synthetic elements up through 101.

In the G. N. Lewis Memorial Lecture, Dr. Seaborg reported in detail for the first time some of the predicted chemical and radiation properties of undiscovered elements up to and including element 105, as well as how he and his colleagues hope to make them.

Dr. Seaborg said only 17 atoms of element 101 were identified in the discovery experiments. Higher in the periodic table, even fewer atoms can be made and they decay more quickly, reducing chances of identification.

Dr. Seaborg and his colleagues hope to overcome these problems chiefly in two ways:

1. By using an atom smasher called the heavy ion linear accelerator, or "Hilac," built with Atomic Energy Commission funds.

2. By keeping alert for unusual isotopes of the ultra-heavy elements.

With the new atom-smasher, the scientists will hurl the nuclei of atoms as heavy as argon, element 18, at target nuclei. In the past, the usual projectile has been the alpha particle, the nucleus of helium, element 2.

With the bigger projectiles, larger yields of the still undiscovered elements are expected, making identification possible.

Identification of elements through 105 may take five to ten years, Dr. Seaborg said.

In the more distant future, he said, elements from 105 through 108 might be identified by their characteristic radioactivity.

The scientist predicted element 102 will be chemically like ytterbium, element 70; element 103 like lutetium, element 71; element 104 like hafnium, element 72; element 105 like tantalum, element 73; 106 like tungsten, element 74; element 107 like rhenium, element 75; and 108 like osmium, element 76.

Science News Letter, November 3, 1956

ELECTRONICS

Univac Given To Harvard University

➤ A TWIN to the giant electronic "brain," the Univac that will forecast this year's election results on the basis of the first scattered returns, has been presented to Harvard University.

The $1,500,000 gift from the Sperry Rand Corporation will be used to spur research in such fields as language study, physics, astronomy and economics. It will join a team of big machines now operating in the Harvard Computation Laboratory.

Science News Letter, October 27, 1956

MEDICINE

Relaxing Drugs Will Cause Great Change

➤ RELAXING, or tranquilizing, drugs will change the mental disease picture in the next ten years as much as the antibiotics, or so-called mold remedies, have changed the germ disease picture in the past 15 years.

This prediction was made by Dr. Felix Marti-Ibanez, medical editor and professor of history of medicine at New York Medical College, Flower and Fifth Avenue Hospitals, New York, at the Fourth Annual Symposium on Antibiotics in Washington.

The symposium is sponsored by the U. S. Food and Drug Administration in collaboration with the journals, *Antibiotics and Chemotherapy* and *Antibiotic Medicine and Clinical Therapy*.

In the years since the first of these symposiums, 43 new antibiotics have been announced, to say nothing of the many others since the discovery of penicillin in 1928 and its first use on patients in 1940.

The field of antibiotics has grown so, Dr. Marti-Ibanez said, that the pharmaceutical industry should set up an International Institute of Antibiotics and should establish "chairs," or professorships, in antibiotic medicine in various countries of the world.

Science News Letter, November 3, 1956