

GENERAL SCIENCE

Young Scientists Sought

In order to help solve the problem of the critical shortage of scientific manpower in this country, the spotlight is again turned on scientists of tomorrow.

By RON ROSS

► HERE are some of the products of a unique scientific experiment:

Nuclear physicist who is helping build a cyclotron. Sulfa drug experimenter. Two young women scientists helping produce better hosiery and other nylon products. Medical student teaching nurses as he works toward his M.D. Chemist making technical studies of synthetic rubber product.

These are some of the young scientists discovered in a scientific experiment. Unlike a new material, they were not poured from test tubes. They were discovered in a scientific hunt for science talent among high school seniors in this country. This experiment in selecting future scientists is called the Science Talent Search.

Each year since 1942, Science Clubs of America, administered by Science Service, has conducted this competition to turn the spotlight on scientists of tomorrow in the senior classes of American high schools. The Seventh Annual Science Talent Search for the Westinghouse Science Scholarships is already underway.

Examination in December

Throughout the country, thousands of science-minded young people have been studying and conducting research which they will enter in this year's Science Talent Search. Formal examinations will be given in December, but the winners are already completing the projects which will win them college scholarships.

For the top boy and top girl among this year's 40 winners from public, private and parochial high schools there will be Westinghouse Grand Science Scholarships of \$2,400, made available by the Westinghouse Educational Foundation. Cooperation of two scientific organizations, Science Service and the Westinghouse Electric Corporation, make the search possible.

The Science Talent Search is a project to help solve the problem of sci-

tific manpower, one of the most critical shortages in this country. Cancer, polio, the common cold and a thousand other urgent problems, all must be solved with scientists as well as laboratories, chemicals and instruments. New products for better living must be developed and produced by scientists and technically trained men and women. Most precious resources of our great laboratories are the minds of scientists. Above all, there must be the slow patient accumulation of basic new knowledge on which the future applications of science are based.

Long Training Period

But there are no labor-saving, time-conserving devices for producing scientists. They must be found and trained for many years before they can turn out new weapons against disease and new developments to benefit us all. The Science Talent Search is proving its worth as a means of spotting those young scientists who will be the research leaders of tomorrow. It was designed to seek out scientifically the outstanding prospective research scientists while they are still seniors in high school.

Despite the interference of war service, a survey shows that the young winners in the first two Science Talent Searches are already well ahead in science, just five or six years after they left high school. Let us look at a few of them.

Clifford Swartz of Niagara Falls, N.Y., boasts two college degrees and is working toward a third. He is one of the atomic scientists of tomorrow. At the University of Rochester where he is studying nuclear physics he is helping to build the new cyclotron under construction there.

Working toward an advanced degree in biochemistry at the University of Michigan is Evelyn Pease of Evansville, Ind. She has spent several summers working in her home town on new sulfa drugs with Mead, Johnson and Co.

Mary Ann Williams, Kingston, N. Y., worked at the Nylon Control Laboratories of the Du Pont Experimental Station before returning to Cornell University,

where she is doing advanced degree research studies in biochemistry.

Another nylon chemist is Julia Anne Wien of Esterly, Pa. She is studying the problem of color-fast nylon hosiery as a chemist with the Berkshire Knitting Mills, Wyomissing, Pa.

Top boy winner in the first Science Talent Search in 1942, Paul Teschan of Shorewood, Wis., is completing his M. D. degree at the University of Minnesota, where he also has taught nurses.

Working toward an advanced degree in chemistry at Cornell University is Wolf Karo, Utica, N. Y. His is the problem of measuring the rate of decomposition of certain catalysts used in making synthetic rubber.

These young scientists are typical of the Science Talent Search winners who have begun carving careers in science for themselves in less than half a dozen years since they were discovered as high school seniors.

Mrs. Gloria Lauer Grace, reared in Ames, Ia., has earned her Ph.D. degree in psychology in four school years, the time normally required to earn a bachelor's degree. Now married to a scientist, Mrs. Grace is teaching at Barnard



OBSERVING SUNSPOTS—Elizabeth Roemer's astronomical readings at the University of California at Berkeley are sent to the National Bureau of Standards where they are used to help forecast radio conditions.



TESTING RESPONSES—Mrs. Gloria Lauer Grace examines a boy at Columbia University while a group of his schoolmates crowd around.

College and has studied the learning responses of New York school children during her work at Columbia University.

A German refugee boy when he won a \$2,400 Westinghouse Grand Science Scholarship, Raymond R. Schiff of New Rochelle, N. Y., wrote an essay on the future of atomic energy. After studying nuclear physics at Harvard, he is now doing atomic experimental work at the Westinghouse Research Laboratories before returning to college.

Winners in Many Fields

The fields of science in which Talent Search winners may be found is broad. Some study the science of the things around them. Others, like Elizabeth Roemer of Alameda, Calif., look to the heavens. Miss Roemer, a winner last year, makes daily sunspot observations which help predict how well your radio will pick up distant broadcasts.

The effectiveness of the cooperation of industry with education in making available opportunities to the scientists of the future is demonstrated by the sponsorship of the Science Talent Search by the Westinghouse Electric Corporation through its Educational Foundation. This industry participates in this educational effort in much the same spirit that it supports fundamental science investigations in its research laboratories—confident that even if the new knowledge gained or the young scientists discovered do not work for Westinghouse, that or-

ganization will have helped advance the world's progress.

The Seventh Annual Science Talent Search will spotlight more young scientists of tomorrow who will graduate from high school in 1948. The Search is already on.

Entrant's Qualifications

Each student will submit his school record and recommendations, complete a three-hour science aptitude examination and report his own work in science in an essay, "My Scientific Project." Examinations will be given in the entrant's own high school on or after December 1.

From approximately 16,000 entries, 300 will be selected for honors. Of this group, 40 will come to Washington late in the winter as winners of the Seventh Annual Science Talent Search. The other 260 named for Honorable Mention will receive recommendations for scholarships to the colleges of their choice.

In Washington, at the Science Talent Institute, winners meet leading scientists, hear of new developments in science and visit important laboratories.

High school seniors working on scientific projects will be winners of this year's Science Talent Search. Ahead of them lie an exciting competition, honors, fame, education and a career in science which will add new proof that the Science Talent Search experiment can help find tomorrow's scientists today.

Science News Letter, November 1, 1947



Atoms, Planets & Stars

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A GRAPHIC REPRESENTATION COVERING THE FOLLOWING:

- 1—The solar system to scale and the movements of the planets, etc.
- 2—A "Time Table" for rocket ships showing arrival time from the planet Earth.
- 3—The Elements, giving the melting and boiling points, density and atomic weights.
- 4—Comparative size of the sun to the orbit of the moon around the earth.
- 5—Comparative size of the star Betelgeuse to the orbits of the planets.
- 6—Sectional view thru the earth showing the pressure at earth's core, etc.
- 7—Twenty of the brightest stars and their distances.
- 8—Our solar system in a nut shell. Shows our relative distance to other stars.
- 9—Our location in the Milky Way Galaxy, and time to reach nearest star.
- 10—Curvature of the earth with comparative heights and depths.
- 11—A drawing showing the way of measuring the distances to near stars.
- 12—Showing movement of comet tails, and their paths thru outer space.
- 13—The Moon. Temperatures, distance, diameter and other information.

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