

STS Winner Writes

"Four or five days after the first larvae appeared, they were removed from the tube and placed in a Syracuse dish in one-eighth of an inch of cyanin solution at a distance of nine inches from a 100-watt, 120-volt desk lamp. The larvae were irradiated for periods varying from 20 to 30 minutes. They were then rinsed in Solution A to remove the excess dye. The irradiated larvae were then placed in fresh medium, a record being kept of the number placed in each tube. They were allowed to develop, and as the flies hatched, they were examined for variations.

"I plan to continue this work, photographing and making slides of the variations. I shall attempt to produce phenocopies by varying the temperature during the critical period. I shall also attempt to improve my technique, to get the exact age at which the development of the larvae can be affected, and to determine the similarity of the somatic variations I have produced to mutations known to occur in *Drosophila*.

"Through my work with *Drosophila*, I am learning the technique and methods of experimentation in one branch of biology. I am learning that research work in science is hard and often discouraging, but a thrilling and rewarding experience."—From the essay of Barbara Wolff.

worker, a doctor—to mention a few.

I doubt that there is any other nation in the world where a search of this kind would turn up youthful talent from so rich and varied a background. As an editorial writer for the *Newark Evening News* has said concerning this Search, "The American dream is many things and of it each writes his own definition, but its essence is the recognition that ability has nothing to do with racial origin or economic circumstances, and that opportunity for self-development is available to all."

Tonight's banquet is the final wind-up of five very busy and full days for this group of young people. But, like all graduations, it is really a commencement. Because they have been singled out from the 16,000 boys and girls who started toward this goal, from now on they are in the spotlight.

Their country will be watching their progress. For we all know that when everything is right with our young people, there is a good chance that everything else will work out all right.

I once heard a story that illustrates what I mean. A young father, finding his son with nothing to do, tore a map of the world out of a magazine, cut it up, and gave it to the boy to piece together again. A few minutes later the job was finished, and he asked his son how in the world he ever did it so fast. "Well,

Daddy," said the lad, "on the back of the map was a picture of a boy. I knew that if I could build the boy right, the world would come out right, too."

In young people of the caliber of our STS winners lie the hopes of our country and the world in years to come.

Science News Letter, March 13, 1948

GENERAL SCIENCE

Employment in Science

► CHOOSE your field on the basis of your own abilities, rather than upon the considerations of economic outlook, is the advice of Ewan Clague, commissioner of Labor Statistics at the U. S. Department of Labor, to future young scientists.

Speaking before the Educational Conference of the Seventh Annual Science Talent Search, Dr. Clague said that although there is now a shortage of trained workers in leading scientific and technical professions, this condition should improve within a few years. "We are now training more young people in the colleges for the scientific professions than ever before," he declared.

Recent estimates made by the President's Commission on Higher Education indicated that on the basis of past trends college enrollments would rise to 2,900,000 by 1960, or more than one-fourth above the 1947 peak, he pointed out.

This means that competition will be keen and subject to rapid change, he predicted, as science opens new fields, as industrial use of research advances,

or as the international situation changes.

In attempting to answer what these trends imply for the individual student interested in the sciences, he presented the analyses made by the Occupational Outlook Service of his department and gave this further advice:

"Each young person planning to go into the sciences must prepare to undertake a rigorous and thorough course of training and preferably to complete graduate study. The long term trend toward requiring more advanced education for scientific professions, as well as the competition foreseen in the next few years, recommends this.

"At the same time it will be desirable for each student to maintain the maximum degree of occupational flexibility, so that he can adapt to changing circumstances. This means getting the broadest basic scientific education as well as specializing in a particular field. It means also being prepared to make adjustments and keeping an open mind on the subject of one's occupational specialization."

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GENERAL SCIENCE

Spot Science Talent Early

► YOUTHFUL scientists should be made to feel that they are as important as athletes, Dr. Arthur S. Adams, provost of Cornell University, declared at the Educational Conference of the Seventh Annual Science Talent Search, meeting in conjunction with the Science Talent Institute held for the 40 winning high school scientists in the Search.

Dr. Adams told educators at the conference that the first job in solving the national problem of providing adequate scientific personnel was to spot science talent early.

He praised the Science Talent Search as "a fundamental effort to achieve such identification and to give important recognition to those who have given convincing evidence of their promise in

scientific work."

Once science talent is discovered, it must be encouraged, Dr. Adams pointed out, adding that money is not the only requirement.

"The individual who is blessed with superior scientific aptitude should be made to feel that his talent is as important to society as is, for instance, the talent of an athlete," the educator asserted.

He warned against making the young scientist "a sort of intellectual curiosity."

Development of the relationship between professional work of the scientist and its social significance was urged, and Dr. Adams emphasized that the young scientist must learn to work effectively with other scientists.

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