

GENERAL SCIENCE

Science Calls Youth

The annual Science Talent Search seeks promising high school seniors. Scholarships are awarded the 40 winners, often laying foundations for careers.

► SCIENTISTS are beginning to turn their minds toward the problems and tasks of peace, even while they still help fighting men to redouble the weight of their blows for a quick knockout of the reeling enemy. Greatest of all scientific advances, however, is in the field of training young men and women.

Nor are signs lacking that our young people are ready for the challenge of the future. Even in the present disturbed condition of our colleges and technical schools, with the bulk of the young men in uniform, there is a multiplied interest in scientific research and in its applications.

Many other boys are not yet of military age, or have been disqualified for physical reasons. And, of course, approximately half the potential student body are girls, most of them under age for enlistment in the WACs, WAVEs and other women's branches of the service.

So the student ranks are filling up, even though the count is a bit out of balance on the coed side:

The essential normality of student attitudes even in these abnormal times is well illustrated by reports on their own activities sent in by winners of the Science Talent Search, a nationwide scholarship contest administered each year by Science Service, with funds supplied by the Westinghouse Electric & Manufacturing Co. Science Clubs of America has already conducted three of these searches, specifically designed to discover the most gifted high school graduates in science, and the 120 winners are now either in college or the armed forces.

Early in each school year, invitations are sent to all public, parochial and private high schools to enter their most promising senior science students in the contest. The thousands of ambitious youngsters who respond are given a stiff

aptitude test, and put over a number of other difficult scholastic hurdles before the contest ends in December.

The fortunate 40 are brought to Washington for a personal looking-over by a panel of judges trained both in science and in sizing up people. The interviews are spread over several days, and for several hours daily the young people attend the Science Talent Institute especially arranged for them, at which they are addressed by some of the most eminent scientists in the country. It isn't all seriousness and hard work, however; they are given a fair taste of Washington sight-seeing, including a call at the White House and visits with their own congressmen and senators.

On the final evening, after a big dinner, the decisions are made known and the awards distributed. The top-ranking boy and girl among the 40 each receives a scholarship good for \$2,400—\$600 each year for four years. Lesser sums, but all substantial, are awarded to the other 38.

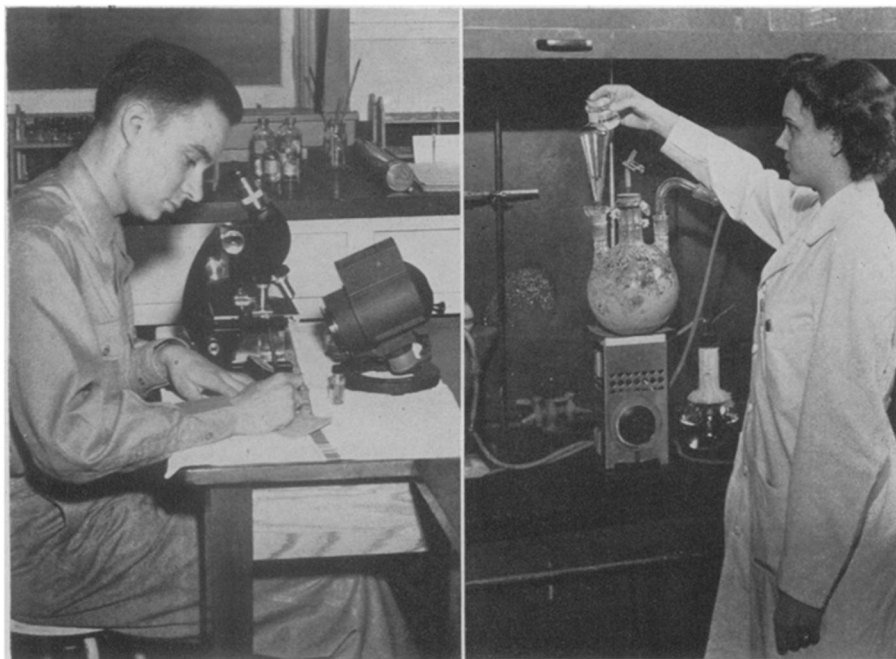
So eager are American universities and colleges to have these prize students on their campuses that additional scholarship grants are invariably offered not only to the two top winners but to every one of the 40. One girl wrote to Science Service that had she been able to accept all the scholarships offered her she would have received a total of \$36,000!

Of the 120 who placed highest during these annual searches, 88 were boys, 32 were girls. Of the 88, latest reports show that 41 have been inducted into the armed services. Twenty-one of these, however, were classified V-12 and assigned to college work in medicine and engineering for the Navy. Three are studying in the same fields for the Army.

The others, now on active military duty, have been given jobs for which their natural inclinations and scientific training, even in high school, had already fitted them—such things as aviation weather service, care of electrical and radio equipment, direction-finding evaluation and medical laboratory work.

The remaining 47 boys still uninducted, and all of the girls, are digging in on their college work as their No. 1 jobs. But their reports show the characteristic versatility and adaptability of typical American students, especially in the kind of summer jobs they held, and the part-time employment they find for themselves on the campus.

Two of the girls, Evelyn Pease of Evansville, Ind., and Marguerite Killingbeck of Nyack, N. Y., quite literally held the lives of many (Turn to Page 234)

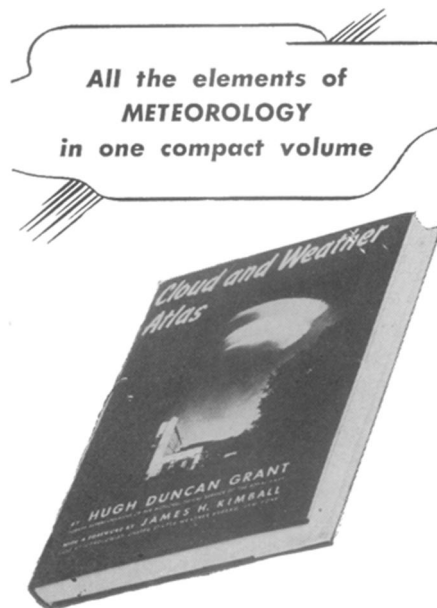


YOUNG SCIENTISTS—Pfc. Allen E. Voigt of Salem, Oregon, (left) works in an Army medical laboratory, where his natural bent for biology helps in tracking down trouble-making germs of malaria and other diseases. Evelyn Pease, of Evansville, Indiana (right), tests already-known sulfa compounds, and has helped synthesize some new ones.

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wounded and sick fighting men in their hands during the past summer, for they were employed in the laboratories of two pharmaceutical companies that manufacture sulfa drugs, penicillin and other medical necessities for the Army and Navy.

Mary Ann Williams of Troy, N. Y., is another girl who has carried a life-and-death responsibility as part of her summer's work. She made chemical analyses in the Nylon Control Laboratories



CLOUD AND WEATHER ATLAS

By HUGH DUNCAN GRANT

With a Foreword by
James H. Kimball

This invaluable atlas, compiled by one of the most distinguished meteorological experts of the Western Hemisphere, will be indispensable to all who need a knowledge of impending weather or are interested in cloud study. 167 photographs include every form of cloud identified by family, genus, species and variety, according to the International System of Cloud Classification; typical cloud formations are analyzed with respect to the impending weather; thunderstorms, tornadoes, dust storms, lightning, the aurora borealis. 167 photographs and many charts. \$7.50

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at the DuPont Experimental Station in Wilmington, Del. Nylon is the material of which parachutes are made, and the stout but elastic tow-ropes that pull troop-carrying gliders through the air, and a score of other vital items of warriors' gear.

One of the most interesting of summer-time jobs was the one at which Marina Prajmovsky of Farmingdale, N. Y., worked a year ago this summer. This was in the Naval Research Laboratory in Washington, D. C. They gave her bits of captured enemy goods without telling her what they were, and she had to find out what they were made of. These analyses are valuable not only in giving information about what the enemy has but about what he lacks. Shortages in enemy supplies may be so cleverly hidden that only the test-tube and the spectroscope can unmask them.

One of the young men, Arthur Ortenburger, Jr., of Norman, Okla., worked

on a seed farm—a hybrid corn seed farm, where he was supervisor of a pollinator team. Arthur will soon be a student at Harvard Medical College.

Clifford Swartz of Niagara Falls, N. Y., though still an undergraduate, was assigned to a large private laboratory.

Irving William Rozian of Hazel Park, Mich., has worked this summer in research for a pharmaceutical company on the absorption and internal effects of sulfanilamide used in a special preparation for secondarily infected dermatoses. He will enter the University of Michigan in September to take a combined course in Chemical Engineering and Business Administration.

Whatever the tasks have been the Science Talent Search winners have gone at them with all the vim and good nature that have made the American student the admiration of the world.

Science News Letter, October 7, 1944

POPULATION-PHOTOGRAPHY

Census by Aerial Maps

This method will be used in 1945 to help locate farm homes and to make agricultural production surveys. Will map 360,000 farms.

➤ AERIAL MAPS will be used by the U. S. Census Bureau in conducting the 1945 Farm Census scheduled to start January 1, Clarence E. Batschelet, chief of the Geography Division of the Census Bureau in Washington, announced.

The technique of aerial photography, now being used widely to prepare vital military maps, has been used in the past by the Department of Agriculture in its soil conservation program. This will be the first time that aerial photos will be used on a wide scale to help census-takers locate farm houses and study agricultural production.

Plans include the aerial mapping of about 360,000 of the 6,000,000 farms in the United States. By mapping only specially selected areas, data will be obtained which will be typical for certain types of agriculture.

The aerial photographs which the Census Bureau will use will come from eight government agencies, including the Department of Agriculture and the Coast and Geodetic Survey.

Many townships and counties in farm areas do not have up-to-date maps. It is impossible, therefore for census workers

to locate recently developed farms and farm residences. The aerial maps will save much time and money in locating these rural properties.

Intensified surveys will also be made in corn, wheat, cotton, and other crop areas. The aerial maps will not only locate the farmhouses but give an accurate estimate of the plantings. Using these maps as a basis for questions, census-takers can gather data in sample areas, which may be applied to similar production areas throughout the nation.

Trained photo-reconnaissance map readers can determine from aerial photos such information as the size of the farm, probable number of horses, cows, chickens, information on farm machinery in use, crops raised, electrical equipment, and many other points.

Aerial maps will be issued to census takers at special schools where map reading will be taught, along with instructions for compiling census information.

Upon completion, the accumulated data will be used to compile special charts from which research analysts will plot trends in farming.

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