

GENERAL SCIENCE

Pick Top STS Winners

Robert T. Moore of Silver Spring, Md., received \$2,800 grand award of the Science Talent Search. John B. Clark of Sycamore, Ill., won the \$2,000 scholarship.

See Front Cover

► A 17-YEAR-OLD MATHEMATICIAN from Silver Spring, Md., whose work helps to solve problems from crystallography to floor tiling, won first prize in the Fifteenth Annual Science Talent Search in Washington.

Robert T. Moore, a Montgomery Blair High School senior, was awarded the \$2,800 Westinghouse Grand Science Scholarship. He is shown on the right in the photograph on the cover of this week's SCIENCE NEWS LETTER.

Second-place winner was an 18-year-old inventor of a plastic to preserve biological specimens for display and study. He is John B. Clark of Sycamore High School, Sycamore, Ill., who was awarded the \$2,000 Westinghouse Science Scholarship. He is shown on the left in the photograph on the cover of this week's SCIENCE NEWS LETTER.

Ranking highest among eight \$400 scholarship winners was John H. Venable Jr. from Northside High School, Atlanta, Ga., who demonstrated the use of polarized light to investigate the flow of liquids.

The winners of the Science Talent Search, which is administered by SCIENCE SERVICE through Science Clubs of America, were announced at an awards banquet, following an address by Dr. Caryl P. Haskins, president, Carnegie Institution of Washington. (See SNL, March 10, p. 154.) The banquet culminated a five-day competition among 40 young high school seniors from 21 states and the District of Columbia. (For related stories, see p. 166.)

The 40 teen-agers, picked from 3,375 entries totaling 20,828 throughout the nation, were brought to Washington to take part in the Science Talent Institute and to compete for the scholarships, provided by the Westinghouse Educational Foundation.

Robert Moore described his project as "roughly analogous to a determination of the possible shapes that the pieces of a jigsaw puzzle may have if they must be alike, straight-sided and convex.

"In its three-dimensional counterpart, this study is possibly relevant to crystallography and organic chemistry (high polymers). More mundane problems, such as those concerning mosaics and floor tiles, might also find solutions in my investigations," he said. "Intuition and curiosity seem to be as essential to a scientist as they are to an artist or composer."

Mr. Moore has built and tested a Wilson cloud chamber, constructed his own clock

radio and devised a machine to project images of protozoa for science club meetings. He rid his basement of skunks by inventing a no-return door. Among his current projects is building a Newtonian telescope. He is secretary of the Junior Academy of Sciences in Washington, D. C.

John Clark, second-place winner, synthesized an improved polyester embedding resin, a plastic to preserve biological specimens that he believes is better in many ways than those now on the market.

Mr. Clark is president of his senior class, a musician and has earned three awards for expertness in diving, and four letters in football.

John Venable, alternate to the \$2,000 Grand Scholarship, used polarized light to investigate the flow of liquids. The data his project has yielded him may, he believes, have important uses in design and testing of fluid systems and marine equipment, and as a supplement to wind tunnel experimentation.

Science News Letter, March 17, 1956

Aluminum is the most plentiful non-ferrous metal in the world.

As many as 1,000 tests may be made on a single dye before it reaches the market.

Use of mechanical cotton pickers in Mississippi Delta cotton during 1954-55 reduced harvest-labor requirements below those of hand-picking by 95% and resulted in increased returns to growers of nearly \$13 an acre.

PROJECTS EXHIBITED—Some of the projects of the 40 top competitors for Westinghouse Science Talent Search Scholarships, as demonstrated to the public by the high school seniors, are shown in the photographs on the opposite page.

Left column, beginning at the top, are: James Bardeen, with his demonstration of how electrons are trapped in rocks; John Venable Jr., alternate to the \$2,000 scholarship, explaining how he analyzed photoelastic stress in liquids; Leland Edmunds Jr., showing the chemical nature of a firefly's bioluminescence, and Melvin Zwillenberg, demonstrating an experimental bubble chamber for the study of charged atomic particles.

Center column are: Ronald Egnitz and his model of the space satellite

to be launched by the United States; Daniel Ch'en, explaining the uses of a radio frequency induction furnace, and James Nearing demonstrating the geometry of soap bubbles.

Right hand column are: Carol Ann Joyce, with her exhibit of atoms in action; Susan Zimet, demonstrating how mice can be immunized to a tumor; Robert Gorn, explaining how his robot electronic turtle operates, and Hersha Sue Fisher, with her model of the Salt River Valley, Arizona. →

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