

Milner S. Ball, Mrs. G. R. Mayfield, Hillsboro High, "Phaseotur humitir as Grown on a Farm."

R. Earl Compton, Mrs. Burt Francis, Isaac Litton High, "An Instrument for Computing Impedence of Coaxial Cables."

Fairman Cumming, Mrs. G. R. Mayfield, Hillsboro High, "Distribution of the Wood Thrush and Veery in the Black Mountains of North Carolina."

Donald H. Miller, Katherine Matthews, West High, "Groundwater in the Central Basin of Tennessee."

Elmer L. Pettit, Jr., Katherine Murray, North High, "Electronic Circuits in Radio and Television."

John D. Roberts, Mrs. Burt Francis, Isaac Litton High, "Tannin Ink."

Ronald L. Smith, Mrs. Burt Francis, Isaac Litton High, "Souped-up Tesla Coils."

Beulah M. Woodfin, Sister Mary Bernadette, St. Bernard Academy, "An Amateur's Weather Station."

Oak Ridge. Elizabeth I. Arnold, Mrs. A. M. Perry, Oak Ridge High, "Culturing Protozoa."

Jane C. Blankenship, Mrs. A. M. Perry, Oak Ridge High, "Hydroponics."

Robert E. Dewese, Mrs. A. M. Perry, Oak Ridge High, "Examination of Water for Bacteria."

J. Gordon Eversole, Mrs. A. M. Perry, Oak Ridge High, "Crystallography."

John A. Hagan, Mrs. A. M. Perry, Oak Ridge High, "Glass."

Robert C. Holt, Mrs. A. M. Perry, Oak Ridge High, "Refining of Petroleum."

Crawford L. Sachs, Mrs. A. M. Perry, Oak Ridge High, "The Effect of Motor Power on Boat Speed."

THE ACADEMY'S TALENT SEARCH FOR '55

HANOR A. WEBB

George Peabody College for Teachers, Nashville, Tennessee
and

JAMES L. MAJOR

Clarksville High School, Clarksville, Tennessee

Thirty-one talented high school science students, graduating this June, have been recommended by the Tennessee Academy of Science for scholarships in the colleges and universities of the State, and in other institutions of higher education that express interest in the annual lists. These have been selected by the Tennessee Science Talent Search Committee of the Academy in a project that began in 1947. The Committee consists of Calvin A. Buehler, University of Tennessee, Knoxville; Howard C. Kirksey, Middle Tennessee State College, Murfreesboro; James L. Major, Clarksville High School, *chairman*; Katherine Matthews, West End High School, Nashville; Charles S. Shoup, Atomic Energy Commission, Oak Ridge; Hanor A. Webb, George Peabody College for Teachers, Nashville.

The present list completes the Ninth Tennessee Science Search, in which the Committee examined the records and

materials sent from fifty-seven Tennessee high schools to the Fourteenth National Science Talent Search, sponsored by Science Clubs of America, Washington, D. C. The national competition was completed in March, 1955. Winston Stanley Marshall of Nashville was one of forty winners of scholarships who received their awards in Washington as guests of Science Service. Six other Tennessee students received Honorable Mention in the selected list of outstanding science students throughout the nation.

The "Honors List for '55" is given below. Much credit should go to each teacher who has been able to interest and counsel a talented student in this rigid national competition. One cannot fail to observe that certain teachers seem very able in this type of encouragement, while other excellent science teachers arouse no interest whatever in this opportunity to demonstrate talent in science. One finds the same teachers' names listed, year after year, with winners in the competition. Conversely, may we ask whether a teacher who has never had a student in the lists really lacks talent, year after year, in his science classes? Or is he unable to discover talent, no matter how obvious, right in front of him?

In the list that follows, the student's name, age and school are given, with the teacher's name in parenthesis.

HONORS GROUP, 1955, TENNESSEE SCIENCE TALENT SEARCH

(**) National Winner; (*) National Honorable Mention

Bristol: Francis, Andy Archie 17; Miller, William J. 17; Moore, Isaac B. 17; (all students of Frank H. Maples, Jr.) Bristol, Tenn., H. S.

Chattanooga: Dolan, James M. 17 (Sister Hyacinth) Notre Dame H. S.; Rafter, John D. G. 16 (S. J. McCallie) McCallie School.

Harriman: *Meers, Benjamin Z. 17 (H. V. Stewart) Harriman H. S.

Henderson: *Bishop, Hal D. 17 (Lyman Goodwin) Chester County H. S.

Knoxville: *McHarris, William Charles 17; Oates, Marian Elizabeth 17; *Pitcher, William F. 17; (all taught by Lula Shipe) Central H. S.
McSpadden, William M. 17 (J. T. Johnson) Young H. S.

Memphis: Adkins, Nancy Lynn 17; Boals, Joe 17; Hendren, Charles 17; Lutz, Alan 17; Sumner, John H. 17; (all students of J. D. Reding) Treadwell H. S.

Inman, Frank 17; Reaves, Edward McC. 17; Tresan, David 17; (all taught by Dorothy Green) Central H. S.

Bolen, Lee N., Jr. 17; Williams, Shirley C. 16; (R. E. Jonakin) Messick H. S.

Goodman, Thomas F. 16 (Brother Edward) Christian Brothers H. S.

Nashville: Cohen, Ormand G. 17; Lentz, Joe F. 16; (Mrs. G. R. Mayfield) Hillsboro H. S.

Dennison, John L. 18; **Marshall, Winston Stanley 18; (Mrs. Burt Francis) Isaac Litton H. S.

Schwartz, Charles J. 17; *Scott, Samuel Theodore, Jr. 17; (Lucile Hines) West H. S.

Oak Ridge: Reeder, John Albert 18; (Hazel Gillentine) Oak Ridge H. S.

Rutledge: *Clark, Thomas H. 15; (Crilla C. Wolf) Rutledge H. S.

Twenty-two names were on the "Honors List for '54." All of these are now attending college, in eight states. Sixteen of them obtained freshman scholarships, and others have by this time obtained remunerative employment at their institution.

W. Stanley Marshall, who received a scholarship award at Washington as one of forty "winners" in the national competition, reported a project of extracting the medicinal components of twenty-four crude drugs. He received recognition at the Nashville Science Fair last spring, and was a finalist in the National Science Fair. His work has been in a home laboratory of his own construction. He is a student at Isaac Litton High School, Nashville, and received the advice and encouragement of Mrs. Burt Francis as teacher. He is an Eagle Scout, president of the newly organized Nashville Academy of Science, and has been active in the Junior Academy of Science for several years. He belongs to the Science, Conservation, and Latin Clubs of his school, plays football, and is on the rifle team. His parents are Mr. and Mrs. Winston N. Marshall of 1403 Hemlock Avenue, Nashville.

A STUDY OF SAPROLEGNIALES (WATER MOLDS) OF KNOX COUNTY¹

TOMMYE ARMSTRONG

Young High School, Knoxville, Tennessee

Due to the fact that there has been no serious study of water molds in Knox County, I became interested in studying them as a project to present to the Tennessee Junior Academy of Science.

Water molds are tiny, simple plants which belong to the Phycomycetes division of the fungus group of plants. They live on decaying matter usually in a moist condition.

The mold develops from a tiny particle called the spore. The spores of *Saprolegnia* are known as biciliate spores. When the spore settles on a substance in a satisfactory condition, it swells and begins to grow by producing many tiny threads called mycelia. The mycelia produce both sexual and asexual reproductive bodies. As the plant body of the mold matures, many of the upright mycelia produce spore cases which contain thousands of spores. Each spore case is called a sporangium. When the

¹This paper was presented before the last meeting of the Tennessee Junior Academy of Science in Nashville. It was awarded first place by the judges. It was sponsored by J. T. Johnson, Chairman of Science Department of Young High School.