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## THE 1951 SCIENCE TALENT SEARCH

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and

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Last March a youthful high school senior, James J. Cowan III, left his home in Maryville, Tennessee, and journeyed to Washington, D. C. There he joined a group of forty, sought and selected from the high schools of the nation in the Tenth National Science Talent Search. This assembly in the Capitol was the climax of a most thorough testing of tens of thousands of high school seniors as to their information and alertness, and demonstrations of incipient research talent by well-presented science projects. The Search is administered by Science Clubs of America, and is financed by the Warehouse Educational Foundation.

Only 300 seniors are given national recognition each year out of some 15,000 who enter the contest. The top forty of them make the trip to Washington—and young Cowan, taught by Mr. Noah Johnson in the Maryville High School, was the sole Tennessean among them in 1951.

James' science project concerned the flight of insects, which he observed under stroboscopic light. Each flash is but one fifty-thous-

andth of a second. He reported that insects' wings seem to trace a figure-8 pattern; that the angle of the wings appears never to drop below the level of the body; that the wing tips often almost touch at the top of their movement; that the angle of sweep from front to rear may approach 90 degrees. Efforts to photograph these movements were only moderately successful.

Awards to the "first forty" at Washington are in the form of scholarships, to be applied at the college of the winner's choice. Because of keen competition James Cowan did not receive a top award, but a cash scholarship was given him.

Deducting from 300 the forty winners of a trip to Washington, there remain 260 who deserve a nation-wide recognition of Honorable Mention. Three Tennessee high school seniors are in this list. Leading in the test scores was Donald Ball of Hillsboro High School, Nashville, taught by Mrs. G. R. Mayfield. Young Ball would have gone to Washington but for his untimely death after a fall suffered during late December while exploring a cave in the Cumberland Mountains. His science project was a comparison of electrical potentials in plant and animal tissues with that in a passive iron wire.

Close behind Ball and Cowan came the test scores of Miss Patricia Wintker of Memphis, taught by Mr. J. D. Reding of Treadwell High School. Her science project concerned the use of radioisotopes in medicine. She obtained her knowledge first-hand from the School of Medicine, University of Tennessee, in her home city.

Just a shade lower than that of Patricia was the rating of Waverly Graham III of the Hillsboro High School, Nashville, taught by Mrs. G. R. Mayfield. He is the seventh person from her science classes to receive Honorable Mention or better in the National Science Talent Searches. His science project was a study of how protozoa are beneficial to man. Soon after announcement of his honor, young Graham was invited to discuss his study and his findings over Radio Station WSM on "The Parade of Science."

Several years ago a committee of the Tennessee Academy of Science undertook to extend the National Science Talent Search on a state basis. Each year thereafter, data and papers have been forwarded from Washington, and the Committee has determined those who should be recognized as leaders of the year's high school graduates as to present interest and future prospects in science. The Committee for the Fifth Tennessee Science Talent Search consists of Mr. James L. Major of Clarksville High School as chairman; Dr. Calvin A. Buehler of the University of Tennessee, Knoxville; Dr. Howard A. Kirksey of Middle Tennessee State College, Murfreesboro; Miss Katherine Matthews of West End High School, Nashville; Dr. Charles S. Shoup of Vanderbilt University, Nashville; and Dr. Hanor A. Webb of George Peabody College for Teachers, Nashville.

Special thanks of the Committee is due Dr. Buehler, who has carried out the computations and prepared the table of ranks as to test scores and other data of significance in the Tennessee awards.

The list that follows adds—to those mentioned already—the names of other high school seniors who merit recognition as possessing scientific talent. The Tennessee Academy of Science has no funds of its own to offer them as scholarship aid. The entire list, however, and statements of their qualifications, has been mailed to the institutions of higher learning in Tennessee, with recommendations for consideration in scholarship awards. Based on past experience, each of these young people has an excellent chance of at least partial aid in financing next year's college attendance.

Each recommended name is followed by that of the teacher, the high school now attended, and the topic of the science project. The order is that of the test scores, all of which were high, and close together. They are: Norman B. Brooks; Miss Lula Mae Shipe, Central High, Fountain City; "Synthetic Rubber." Robert H. Watkins; Father Julius, Father Ryan High, Nashville; "Radio and TV Antennas." Jack G. Kennon; Mr. H. S. Emig, Humes High, Memphis; "The How, Why, and What-for of Science." Richard E. Bellamy; Mr. J. D. Reding, Treadwell High, Memphis; "The Philosophy of Case-holding in Venereal Disease Control." William R. Bryan; Mr. Sherman Kelly, Bartlett High, Cordova; "Use of Red-fin Minnows for Bait." Goebel Davis, Jr., Mr. James Major, Clarksville High; "Radio Communications." William H. Barton; Miss Dorothy Green, Central High, Memphis; "The Animal Protein Factor in Poultry Nutrition." Vincent P. Ellis; Sister Hyacinth, Notre Dame High, Chattanooga; "Tuberculosis." Charles R. Marshall; Mr. David J. Levine, Central High, Nashville; "Motors." Paul G. Haas; Father Julius, Father Ryan High, Nashville; "The Wilson Cloud Chamber." Mary E. West; Mr. Kenneth L. Oldham, Dobyns-Bennett High, Kingsport; "Cancer Research." William Christenberry; Mr. J. Clyde Lowery, Knoxville High; "The Car of the Future." Carl David Todd; Mr. Warren Fesmire, Jackson High; "Radio and Electronics." Donald L. Zanders; Mr. James Major, Clarksville High; "Radiation Detection Instrument." James E. West; Mr. James Major, Clarksville High; "Characteristics of Vacuum Tubes." Ann Dodd; Mr. W. L. Maybry, Treadwell High, Memphis; "Experiments with Sounds." James E. Fields; Mr. Earle C. Smith, Baxter Seminary, Baxter; "The Melting Factor of Salt in Ice." Wallace B. Rogers; Mrs. G. R. Mayfield, Hillsboro High, Nashville; "Atomic Energy." James Eugene Massengill; Mr. J. Clyde Lowery, Knoxville High; "Methanethelene Bromide."

Each of the twenty-two students who have been recommended by the Committee has a high scholastic record in subjects other than science, and is very active outside the classroom. Their interests in honor societies, art and music groups, clubs, sports, their school paper and annual, and a surprising variety of hobbies, are impressive.

Mr. Major has obtained information concerning twenty of the twenty-two students listed in the Fourth Tennessee Science Talent Search of 1950. Of these, four are enrolled as freshmen at the University of Tennessee, Knoxville. Three are at Vanderbilt Univer-

sity, Nashville. Two each are in Georgia Institute of Technology, Atlanta; Southwestern University, Memphis; and in the Navy. One name from the list is enrolled in each of these schools: Austin Peay State College, Clarksville; Colorado School of Mines, Golden, Colorado; Memphis State College; Notre Dame University, South Bend, Indiana; Tulane University, New Orleans, Louisiana; University of Chattanooga; University of the South, Sewanee.

Personal notes from these students are most interesting. They are finding college courses harder than those of high school. The freedom they have is both pleasing and annoying. All find the broadening outlook and intellectual advance a thrilling experience. Each is thankful for his chance to go to college, and has strengthened his ambition to become a person of skill and influence. The Tennessee Academy of Science congratulates all winners in this Fifth Science Talent Search it has sponsored, and extends this praise to all of the science teachers whose labors have born fruit in the achievements of these students.

## REPORT OF ACADEMY CONFERENCE REPRESENTATIVE

C. L. BAKER

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and President of Academy Conference of American Association  
for the Advancement of Science*

Two meetings of the Academy Conference and the American Association for the Advancement of Science have been attended since my last report: one in New York City in 1949 and the December, 1950, Cleveland meeting. My functions are two: (1) as a representative on the council of the AAAS, which is the governing board, and (2) as a delegate to the Conference of State and Municipal Academies, of which there are thirty-eight.

The Academy Council seeks to discuss academy problems and transmit to all academies the experiences of each; thus it is the common meeting ground of academy representatives. At the last Cleveland meeting a tentative constitution was drafted and approved for the organization. One point of interest is membership: There shall now be two representatives from each affiliated academy, one of whom shall be the officially designated delegate to the Council of AAAS; the other shall be an officer of the affiliated academy. In event either or both of the above shall be unable to attend a meeting, the officers of each academy may appoint duly accredited alternates. In addition others may attend. Academies are urged to appoint their representatives one year in advance of meetings.

In a brief period it is difficult to tell about the entire meeting and give a summary of all papers, discussions, etc. that transpired. I believe, however, I can point out briefly several features of interest for the good of our Tennessee academy.

A report from the Cooperative Committee on the Teaching of Science and Mathematics urges that in order to strengthen the certification program in the various states, scientific groups such as