

THE TENNESSEE JUNIOR ACADEMY OF SCIENCE

FRANCES R. BOTTUM, *Sponsor*

George Peabody College for Teachers, Nashville, Tennessee

The Eleventh Annual Meeting of the Junior Academy of Science was held on Friday, November 28, and on Saturday, November 29, 1952, at the University of Chattanooga. Entertainment, sponsored by the Science Club of Red Bank High School, Chattanooga, was provided for visiting students on Friday evening in the Woman's Gymnasium. About sixty-eight guests were present to enjoy square dancing, cider, and ginger cookies.

In the forenoon of Saturday, student papers and exhibits were presented; Diane Fennell of Notre Dame School and Marvin Turner of Central High School, assisted by Courtney Lewis of Red Bank High School, all of Chattanooga, and by Don Miller of West End High School, Nashville, presided. The students were welcomed by Dr. Carl K. Seyfert, President of the Tennessee Academy of Science, for the Academy, and by Miss Eleanor McGilliard for the University of Chattanooga.

Thirty-three students participated in the program, necessitating the use of two rooms in the Student Commons. Thirteen papers were given by students from Chattanooga. Sponsored by Mrs. M. A. Caballero of Red Bank High School, Bobby Ford and John Coleman related their experiences in animal husbandry, William Walker told of his study of radio-active bismuth isotopes, Leroy Smith demonstrated water pollution and Gerald Bailey exhibited photographs and told of his experiences in photography.

Representing Notre Dame School, Chattanooga, and sponsored by Sister Jane Frances, Diana Caballero demonstrated chromatography, Carmen Caballero presented her study of regeneration in Orthoptera, and Chester Raymo gave a paper on atomic structure.

Central High School students, sponsored by Mr. Edwin Bohr, and by the Physics and Chemistry Club, made seven contributions to the program. Marvin Turner talked on lie detection, Kay Hoffmeyer on assembling a human skeleton; John Deyer gave a demonstration of liquid air, and Kenneth Burns of the Oudin Coil. Patrick Kelley's subject was spectroscopes, and Walter Mooney's the development of the modern oscilloscope.

Mr. Conrad Bates of Chattanooga High School sponsored Bennie Deitch who had constructed a Van de Graaff generator and James Daniel who had made a "handy-talkie" radio transmitter. Robert Lee Johnson, from the same school and sponsored by Mrs. Paul Lewis, discussed his studies of jelly fish. He exhibited a Portuguese man-of-war.

Knoxville was represented by seven students. Susi Neidemayer, an Austrian Exchange student discussed science education in Austrian

public schools. Susan Shelton talked on peace-time uses of atomic energy, and Robert Trent told of his experiences with infra-red photography, illustrated by an exhibit. Bill Sims and Bill Fischer returned this year to report further work in the study of Indian cultures. Bill Sims talked on the Cherokees of Eastern Tennessee, and Bill Fischer on prehistoric Indians of the Cumberland Mountains in Campbell and Claiborne counties, Tennessee. These boys have some very fine collections of relics. All of these students were sponsored by Mr. J. T. Johnson of Young High School. Miss Lula Shipe of Central High School sponsored Jennifer Tipton whose subject was "Tracking down Alpha Particles," and Mary Lou Rollins who displayed and described her living specimen of the sword tail, *Xiphophorus helleri*.

Sponsored by Mrs. Angie Perry and Mr. George A. Boyd, Douglass Saunders of Oak Ridge High School, Oak Ridge, exhibited and described his work with autoradiograms. Allen Westerdahl displayed radioactive minerals, having enlarged his collection since last year, and Robert E. Dewese reported on his comparative quantitative bacteriological analyses for fecal contamination of points on the Clinch River. This was fully illustrated by an exhibit. Allen and Robert were sponsored by Mr. James A. Garrett, Jr.

McMinn County High School, Athens, was represented by Henry Riviere and Daisy Orr, sponsored by Mr. Harry Kroll, Jr. Henry spoke on "Water Solubles and Aragonites" and had an exhibit of minerals, Daisy had made a collection of butterflies and moths from her community.

Seven students from Nashville represented West End High School and were sponsored by Miss Katherine Matthews. Arthur Grobel gave the life histories of some Brazilian butterflies, Carol Lynn Miller passed around candy of varying quality illustrating her discussion of application of chemical principles in candy making. Don Miller, who won last year the A.A.A.S. award for a study of the geology of Nashville, this year told of his experiences in iris breeding. Dan Schreiber discussed "Ornithology, a Segment of Ecology." Teddy Scott demonstrated a Michelson interferometer which he had assembled, Stanley Von Hagen exhibited his work in the cracking of mineral oil, and Chick Schwartz displayed and described his "portable do-all," a laboratory for experimentation in chemistry, electricity, and radio, necessitated by his having to keep out of the way of other people so much. Three boys from Cumberland High School, sponsored by Mr. Joseph Garrett, were unable to come. They were prepared to show an anatomical chart of the human body in the form of an electrically operated board which could be used for quizzes. These boys were Clarence Jackson, Robert Newman, and Robert Smith, all of Nashville.

Before adjournment, announcement of awards was made. Each student contributing to the program was presented with a certificate of merit. The committee of judges recommended that the A.A.A.S. Awards be made to Jennifer Tipton of Central High School,

Knoxville, for the best contribution made to the program by a girl, and to Don Miller, of West End High School, Nashville, for the best contribution made by a boy. Honorable mention was made of the work of Robert Lee Johnson, Carol Lynn Miller, Douglass Saunders, Daisy Orr, Bennie Deitch, and Allen Westerdahl. The following served as judges: Dr. Hanor A. Webb, chairman, Mrs. Helen Richardson, Director of the Georgia Junior Academy of Science, Miss Sue Stewart, Carson-Newman College, Mrs. Harry Kroll, Athens, and Dr. John H. Banks, George Peabody College for Teachers.

Arranged by Miss Elizabeth Jenkins of Soddy-Daisy High School, a luncheon was held for judges and sponsors. The tour of Chattanooga, sponsored by the Physics and Chemistry Club of Central High School, was cancelled at the last minute because of a sudden change in the weather.

In charge of registration were Katharine Walker, Marian Moulton, Anne Ogden, Frances Dicaho, and Charles Shoup. In charge of local arrangements were Mrs. M. A. Caballero, Chairman, Edwin Bohr, Mrs. Edwin Bohr, Mrs. J. E. Brown, Sister Jane Frances, Conrad Bates, Elizabeth Jenkins, Eleanor McGilliard, Paul Morris, and Mrs. Sally Smith.

The meeting was somewhat larger than any in recent years. There were about two hundred students and visitors present. These represented twenty-four high schools in twenty cities and towns, chiefly of East Tennessee. This is a much wider representation than in any preceding year.