Total receipts were \$4,520.63 making a total of \$11,843.39 as cash available. Total disbursements were \$11,089.14 leaving a balance of \$754.25 as of October 31, 1967. As of January 1, 1967 the Reelfoot Station had \$3,000.00 received from a Tennessee State Grant. Total disbursements were \$2,627.74 leaving a balance of \$372.26. The previous bank balance as of January 1 was \$1,641.71 leaving a total bank balance of \$2,013.97 as of October 31, 1967. Rayford J. McLaurin, Chattanooga, Tennessee, audited the treasurer's reports and found everything in order.

A motion was introduced and seconded that President-Elect Roger Rusk find a replacement for Dr.

Richard Stevenson as member-at-large. The motion carried.

It was moved and seconded that the Academy appropriate \$5,500.00 to the Visiting Scientist Program. The motion was carried.

Dr. Melburn Mayfield introduced a motion to confer honorary membership on Senator Halbert Harvill. The motion was seconded, and it was carried. The secretary was instructed to send a certificate of Honorary Membership to the Senator.

The meeting was adjourned at 10:05 a.m. CST.

THE SEVENTY-SEVENTH MEETING OF THE TENNESSEE ACADEMY OF SCIENCE

November 17-18, 1967

TENNESSEE TECHNOLOGICAL UNIVERSITY

The seventy-seventh meeting of the Tennessee Academy of Science was held November 17-18, 1967, at the Tennessee Technological University, Cookeville, Tennessee. Donald Caplenor was Chairman of the Local Arrangements Committee, and Roger Rusk, University of Tennessee, was program chairman. A total of 324 persons registered for the meeting. Of these, 276 were college university professors and students; 13 were high school teachers and students; and 35 were from ORNL, TVA, State Divisions, and private industry.

The General Session was held in the auditorium of the Physics and Mathematics Building on Friday morning. President Norman Campbell presided, and the welcome was delivered by Dr. Martin Peters, Dean of Student Services in the absence of Dean Wallace Prescott, Dean of Faculties. Sectional meetings were held Friday afternoon; 59 papers were presented. The annual business meeting was held in Room 233 of the New Science Building at 5:00 p.m. CST.

The annual dinner was held in the University Cafeteria at 7:30 p.m. CST, Friday evening. It was attended by 167 persons. President Norman Campbell presided, and the address was delivered by Dr. Melburn R. Mayfield, Professor of Physics, Austin Peay State University, who spoke on "The Anti-Brownian Movement and Other Phenomena."

The Collegiate Division held its meeting on Saturday morning; 15 papers were presented.

ANNUAL BUSINESS MEETING

The annual business meeting of the Tennessee Academy of Science was called to order by President Norman Campbell at 5:00 p.m. CST in Room 230 of the New Science Building at Tennessee Technological University

in Cookeville, Tennessee, on November 17, 1967. The minutes of the business meeting of 1966, published in the Journal were approved.

The secretary reported that during 1967, there were 36 new members, 2 drops, and 4 deaths. During the annual meeting, there were 25 new memberships. Academy membership now stands at 868. A motion was introduced and seconded that all applications for membership be approved. The motion carried.

The reports of the Treasurer, the Editor, the Director of the Collegiate Division, the Director of the Junior Academy, the Director of the Visiting Scientist Program, the Director of the Science Talent Search, and the Director of the Reelfoot Biological Station were similar to those presented at the executive committee meeting. Again, all reports were approved.

The President made several announcements to the membership present.

- Next year we will have to elect a new Journal Editor.
- 2. Federal support for several programs will diminish, but the State Department of Education will give us assistance.
- 3. Dr. Richard Stevenson and Brother George Carney have resigned as Members-at-Large. Dr. Robert Amy will take Brother Carney's place. Dr. Stevenson's position is yet to be filled.

Dr. Campbell expressed his pleasure on being President during 1967. He stated that he had enjoyed the happy association with fellow members across the state.

The Chairman of the Auditing Committee announced that he had examined the Treasurer's reports and found

all accounts in order. He and a few other members suggested that the records should be audited as of December 31, not October 31.

The Chairman of the Fellows Committee presented the following members of the Academy as nominees to be named Fellows of the Academy:

- 1. Robert L. Amy, Southwestern, Memphis.
- John H. Bailey, East Tennessee State University, Johnson City.
- 3. Neal Carter, Cohn High School, Nashville.
- Peter Cohan, Science Experience Center, Oak Ridge.
- William T. Conn, Supervisor of Science, City Schools, Memphis.
- James Davis, Dobyns-Bennett High School, Kingsport.
- 7. William H. Ellis, Austin Peay State University, Clarksville.
- 8. Glenn Gentry, Tennessee Game and Fish Commission, Donelson, (Retired).
- 9. John M. Mallette, Tennessee A. & I. State University, Nashville.
- Ruth M. McPherson, Science Hill High School, Johnson City.
- 11. Joe P. Minor, State Department of Education, Nashville.
- 12. William G. Stokes, Austin Peay State University, Clarksville.
- 13. Paul Wishart, University of Tennessee, Knoxville.
- 14. Sara Wood, Austin Peay State University, Clarksville.

A motion was passed that those named be made Fellows of the Academy.

The Chairman of the Necrology Committee read the names and biographies of the four members whose deaths came to his attention during the past year.

- Charles M. Goethe, Sacramento, California. Conservationist and philanthropist.
- Armour T. Granger, Knoxville, Tennessee. Former Dean of the College of Engineering, University of Tennessee, Knoxville.
- Christopher C. McClure, M.D., Nashville, Tennessee. Professor Emeritus of Clinical Radiology, Vanderbilt University School of Medicine, Nashville.
- 4. Nathan H. Woodruff, Buenos Aires, Argentina. Scientific Attache for the U.S. State Department in Buenos Aires, Argentina.

A moment of silent prayer was observed for deceased members.

The Chairman of the Program Committee reported that 77 papers were presented at the annual meeting. None of the papers were in engineering. In behalf of the Academy, the chairman thanked the Local Arrangements Committee for making an excellent meeting possible.

The Chairman of the Research Committee announced that the Academy had \$536.00 on hand from the AAAS. To date, \$261.80 has been allocated for three research projects leaving a balance of \$274.20.

The Chairman of the Resolutions Committee read three resolutions which were approved.

- Be it resolved that the Tennessee Academy of Science expresses its appreciation and gratitude to Tennessee Technological University, especially to Dean Wallace Prescott; Dr. Donald Caplenor, Chairman of the Local Arrangements Committee; and the other members of the Committee Dr. S. K. Ballal; Mr. Ralph Fuson; Dr. Walter L. Helton; Dr. Robert Martin; Dr. John Skinner; Dr. Robert Swindell; and Mr. Elbert Ward for the effective planning and the gracious atmosphere of this most successful meeting.
- Be it resolved that the Secretary be instructed to write a letter of appreciation to J. H. Warf, Commissioner of the State Department of Education for the financial aid received the past year.
- Be it resolved that the Secretary be instructed to write a
 letter to Mr. James Major expressing appreciation for his
 twenty years of service to the Tennessee Academy of
 Science and his enthusiastic and energetic handling of the
 Science Talent Search.

The Chairman of the Nominating Committee proposed Dr. Gustav Lundberg for President-Elect for the year 1968. There were no further nominations from the floor, and a motion was carried that the Secretary cast one vote representing the unanimous election of Dr. Lundberg as President-Elect.

A motion was introduced, seconded, and passed that our annual meeting be held the weekend (Friday and Saturday) preceding the Thanksgiving Holiday.

Dr. Arthur Jones, University of Tennessee, Knoxville, introduced a motion requesting that the executive committee appoint a special committee to study the Academy's position in relation to the teaching of evolution in the schools of Tennessee. The motion was seconded, and it carried.

Dr. Clinton L. Baker invited the Academy to hold the next annual meeting at Southwestern at Memphis, November 22-23, 1968. Action was deferred.

The President announced that the Academy has received an invitation from Dr. H. Malcolm Owen of the University of the South to hold our annual meeting at Sewanee, November 21-22, 1969. Action was deferred.

Dr. James Wilson suggested that the April issue of the Journal contain an announcement for the next annual meeting. The Journal Editor agreed to do this.

The meeting was adjourned at 6:00 p.m. CST.

NEW MEMBERS 1967

Allen, William Baker, 2761 Tanglewood, Chattanooga, Tennessee 37403

Allen, William C., 2311 Whipple Place, Nashville, Tennessee 37218

- Barnes, Robert H., 2819 Hillside Drive, Nashville,
- Tennessee 37212 Bordeau, Dr. Kenneth V., Box 431, Martin, Tennessee
- Burnham, Dr. Kenneth D., Dept. of Zoology, Unv., of Tenn., Knoxville, Tennessee 37916
- Campbell, Dr. James A., 2707 Bronte Avenue, Nashville, Tennessee 37216
- Collier, George Donald, 1602 N. Washington Avenue, Cookeville, Tennessee 38501
- Cottingham, Auburn B., Box 1047, David Lipscomb College, Nashville, Tennessee 37203
- Daniel, Robert, 121 Circle Hill Drive, Clarksville, Tennessee 37040
- Dimmick, Ralph W., Dept. of Forestry, Univ. of Tenn., Knoxville, Tennessee 37916
- Doran, James M., 147 Mattson Street, Cookeville, Tennessee 38501
- Evans, Robert D. Jr., Dept. of Physics, Tusculum College, Greeneville, Tennessee 37743
- Fenner, David K., 610 Birch Street, Elizabethton, Tennessee 37643
- Fowlkes, Richard A., Biol. Dept., Austin Peay State Univ., Clarksville, Tenn. 37040
- Gant, Robert E., Box 5505 APSU, Clarksville, Tennessee 37040
- Garner, Dr. Jasper H. B., Dept. of Biology, East Tenn. State Univ., Johnson City, Tenn. 37601
- Ginski, Dr. John M., Dept. Physiology & Biophysics, Division Clinical Physiology, University of Tennessee, Memphis, Tennessee 38103
- Greenwell, Lloyd M., East Tenn State University, Box 8354, Johnson City, Tenn. 37601
- Griffith, Kenneth D., 336 N. Peachtree Avenue, Cookeville, Tennessee 38501
- Harker, Donald F., Box 4941, Austin Peay State University, Clarksville, Tenn. 37040
- Harrell, Bernard, 2514 Jefferson Street, Nashville, Tennessee 37203
- Harvey, Mrs. Joyce H., Rt. 2, Clydeton Road, Waverly, Tennessee 37185
- Helton, Dr. Walter L., Tenn. Tech. Univ., Box 49A, Cookeville, Tennessee 38501
- Howard, Dean Jack H., Cumberland College, Lebanon, Tennessee 37087
- Hutcheson, Phillip E., Psi Omega Frat., 242 S. Pauline, Memphis, Tennessee 38104
- Ingle, Billy Donovan, Apt. #2, Neely Apartments, 521 Laurel Avenue, Cookeville, Tennessee 38501
- Jaco, Ben D., 5004 Malibu Drive, Knoxville, Tennessee
- Karr, Dr. Eugene J., Bethel College, McKenzie, Ten-
- Kaufmann, Dr. Anthony J., Dept. of Health Sciences, East Tenn. State University, Johnson City, Tennessee

- Langford, Dr. Paul B., Dept. of Chemistry, David Lips.
- comb Conego, Lewis, Horace M., c/o Lewis Cleaners, Manchester,
- Ley, Max, Jr., Box 54, Rock Spring, Georgia 30739
- Ley, Max, Jr., Litchford, Robert, Dept. of Biology, Univ. of Chattanooga, Tenn. 37403
- Lorenz, Philip J., Univ. of the South, Sewanee, Ten.
- Magnuson, Charles E., 305 East King Street, Jefferson
- Mahajan, Dr. Satish C., Lane College, Jackson, Ten.
- Miller, Raymond A., Box 2672, East Tenn. State Uni.
- Morris, Gordon, Dept. of Liberal Arts, Univ. of Ten.
- Moury, Dr. Daniel N., Dept. of Chemistry, Tusculum College, Greeneville, Tenn. 37743
- Munavalli, Dr. Somashekhar, Lane College, Jackson, Tennessee 38301
- Nash, Dr. Clinton B., Dept. of Pharmacology, U.T. Medical Units, 62 S. Dunlap Street, Memphis, Tennessee 38103
- Nelson, Dr. William F., Biology Division, Univ. of Tennessee, Martin, Tennessee 38237
- Outten, William A., Box 772, East Tenn. State University, Johnson City, Tenn. 37206
- Pafford, Dr. William N., East Tenn. State Univ., Box 2672, Johnson City, Tenn. 37601
- Pardue, Joseph Wayne, Rt. #3, Clarksville, Tennessee 37040
- Parks, William S., U. S. Geological Survey, W.R.D., Room 830, Federal Office Building, Memphis, Tennessee 38013
- Parrott, Earl Q., 714 Iris Place, Newport, Tennessee
- Pav, Mrs. Denise I., 1501 College Heights Drive, Johnson City, Tennessee 37602
- Peltier, William Hamilton, 415 E. 10th Street, Chattanooga, Tennessee 37401
- Phillips, Ann, Box 5428, Austin Peay State University, Clarksville, Tennessee 37040
- Poole, Stanley Dale, Route #1, Cunningham, Tennessee 37052
- Reed, John E., Tenn. Tech. University, Box 2998, Cookeville, Tennessee 38501
- Richmond, Dr. Milo E., Dept. of Biology, East Tenn. State Univ., Johnson City, Tennessee 37601
- Roberson, Robert, 68 North Dixie Avenue, Cookeville, Tennessee 38501
- Robertson, Peggy Louise, Box 537, Union University, Jackson, Tennessee 38301
- Rudder, Boe R., Box 2449, Tenn. Tech. University, Cookeville, Tennessee 38501
- Rush, Dr. Richard M., 102 Dana Drive, Oak Ridge, Tennessee 37832

- Sabo, Edward S., Box 1379, Nashville, Tennessee 37203
 Salo, Dr. Torsti P., Dept. of Biochemistry, Univ. of Tennessee, 611 Hesler Building, Knoxville, Tennessee 37916
- Schiffman, Charles R., 4977 New Haven, Memphis, Tennessee 38117
- Scott, Donald G., Bryan College, Dayton, Tennessee
- Sharp, Ralph, Box 225, Middle Tenn. State University, Murfreesboro, Tennessee 37130
- Sherrill, Martin V., 3840 Crouch Drive, Nashville, Tennessee 37218
- Sliger, Wilburn A., Dept. of Biology, University of Tennessee, Martin, Tenn. 38237
- Small, Peter F., 104 Boyd Street, Johnson City, Tennessee 37601
- Smith, M. O., Dept. of Earth Sciences, Tenn. Tech. University, Cookeville, Tenn. 38501

- Stewart, Dr. Lynn M., Dept. of Biochemistry, Meharry Medical College, Nashville, Tennessee 37208
- Stone, Dr. Hazel Robinson, 307 East 6th North Street, Morristown, Tennessee 37814
- Swindoll, Mrs. Hannah E., 520 Notre Dame Avenue, Chattanooga, Tennessee 37412
- Thomas, Dr. R. Dale, Biology Department, Northeast La. State College, Monroe, Louisiana 71201
- Wert, Jonathan M., Dept. of Biology, Box 4252, Austin Peay State Univ., Clarksville, Tennessee 37040
- Westbrook, Catherine, Women's Honor Dormitory, Tenn. A. & I. State University, Nashville, Tennessee 37203
- Wibking, Dr. Robert K., Dept. Geol. & Geog., Austin Peay State University, Clarksville, Tennessee 37040
- Wilson, Larry, Box 422, Tennessee Tech. Univ., Cookeville, Tennessee 38501

TREASURER'S REPORT

OPERATING ACCOUNT
ROBERT L. WILSON, *Treasurer*JANUARY 1, 1967—JANUARY 1, 1968

Balance Available January 1, 19	67	\$7,322.76	DISBURSEMENTS		
Membership Regular Others Journal Subscription Sale of Publications Advertising AAAS Grant	\$3,252.00 115.00 989.34 242.00 440.00		Secretary's Office Editor's Office Treasurer's Office Executive Committee Printing and Mailing Journal Talent Search Expenses to AAAS Reelfoot Lake	279.03 429.00 1,264.90	
Reimbursements— NSF Grants VSP (repayment of loan) State of Tennessee Grant	331.80 1,943.61 1,000.00 5,500.00		Legal Expenses; Audit Fee Research Grants (Hardin-Petty) VSP: State Grant TAS 5,50	86.80 5,500.00	
Total Receipts Total Cash Available	13,813.75	\$21,136.51	Total Balance Available January 1, 196 Savings Account	\$18,706.81 38	\$2,429.70 \$4,141.86