

JOURNAL

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NEW PRESIDENT OF THE TENNESSEE ACADEMY OF SCIENCE



Norman Campbell, President of the Tennessee Academy of Science for 1967, was born January 4, 1911, near Greenfield, Tennessee. After graduation from Greenfield High School, he enrolled first in the University of Tennessee Junior College, later in the University of Tennessee. He was awarded the B.S. degree in 1937, the M.S. in chemistry in 1938. In 1959-1961 he studied at the University of Illinois on a National Science Foundation Faculty Fellowship, and received his Ph.D. in chemistry in 1961.

His first teaching experience was in the public schools of Weakley County, Tennessee. He taught chemistry at Bethel College, McKenzie, Tennessee, from 1938 to 1940. In 1943 he became an instructor of chemistry at the University of Tennessee Junior College. Except for a two-year leave of absence he has remained with that institution and its successor, the University of Tennessee at Martin ever since. At present he holds the rank of Professor of Chemistry and is Head of the Liberal Arts Department and Dean of Instruction.

Dr. Campbell is a member of the American Chemical Society, the American Association for the Advancement of Science, and several professional education organizations. In 1965 he was Chairman of the Kentucky Lake Section of the American Chemical Society. The present year is his fifth as a member of the Executive Committee of the Tennessee Academy of Science.

NEWS OF TENNESSEE SCIENCE

The Middle Tennessee Region, Collegiate Division, Tennessee Academy of Science will meet at David Lipscomb College in Nashville on May 13, 1967. Titles for student papers are due in the office of Dr. John T. Netterville, Department of Chemistry, David Lipscomb College, Nashville, Tennessee 37203, by April 22. Section meetings will be followed by a business session with the election of regional officers. A dutch treat luncheon will feature Mrs. Mary Burton Dunlap speaking on "Reptiles in Fact and Folklore."

Tennessee Technological University requested a review of its curricula in electrical engineering, engineering science, and mechanical engineering by the Engineers' Council for Professional Development during the spring of 1966. At the 34th annual meeting of the ECPD held on October 3, 1966 in Denver, Colorado, the Board of Directors took action to accredit each of these three programs offered within the College of Engineering. This action added the name of Tennessee Technological University to the list of 179 engineer-

ing colleges and universities across the United States which have engineering programs adjudged to be of a quality which meets criteria for accreditation. ECPD's list of colleges and universities with accredited curricula now includes three schools in Tennessee—these are the University of Tennessee, Tennessee Technological University, and Vanderbilt University.

News from the Botany Department of The University of Tennessee includes a number of items. Mr. Wayne Chester, a graduate student, received support from the Society of the Sigma Xi for travel in connection with studies of the genus *Halesia* during the spring quarter. Dr. H. R. DeSelm also received support from Sigma Xi for travel to a workshop in Arizona at the Laboratory of Tree-Ring Analysis.

Dr. A. J. Sharp has traveled extensively during the past several months. He spent several weeks in Mexico in connection with his studies of bryophyte distribution

(Continued on page 45)

PROCEEDINGS OF THE TENNESSEE ACADEMY OF SCIENCE FOR 1966

JAMES D. CAPONETTI, SECRETARY
University of Tennessee, Knoxville

MEETING OF THE EXECUTIVE COMMITTEE
February Meeting, George Peabody College

The executive committee meeting of the Tennessee Academy of Science was called to order by President Melburn R. Mayfield at 7:00 P.M. in the Walnut Room of the Student Center at George Peabody College in Nashville, Tennessee, on January 14, 1966. Members present were Melburn R. Mayfield, President; Norman Campbell, President-Elect; Robert Wilson, Treasurer; James Caponetti, Secretary; Donald Caplenor, Journal Editor; Clinton Baker, Director of Reelfoot Station; Brother Carney, William Ellis, and Richard Stevenson, Members-at-Large; Richard J. Raridon, Sponsor of the Collegiate Division; John H. Bailey, Sponsor of the Junior Academy; Miser Richmond, Auditing Committee; James Major, Science Talent Search Committee; and Roger Rusk, Visiting Scientists Committee. Also present were Past-President Frank Barclay, Past-Treasurer Gordon Pennebaker, Past-Secretary James Wilson, and Past-Editor Gustave Lundberg. The assistance of these past officers greatly aided the new officers to assume the affairs of the Academy. At various times throughout the meeting, motions were introduced, seconded, and carried expressing thanks and appreciation for the efforts of these past officers in behalf of the Academy.

James Wilson reminded the membership of the changes in the Constitution and Bylaws of the Academy. The first sentence of Section 1, Article IV has been amended to read "The officers of the Academy, the immediate past president, the sponsors of the Junior Academy and the Collegiate Division, and three other members shall constitute the Executive Committee of the Tennessee Academy of Science." The dues structure has been changed to the extent that members and fellows pay \$5.00, all teachers below the college level pay \$3.00, and all students pay \$2.00 (Article X of the Bylaws, Section 1, first sentence).

James Wilson then distributed copies of the minutes of the December, 1965, Executive Committee Meeting and the Annual Business Meeting, at Oak Ridge. After the members had time to read the reports, only one change was necessary. The time of adjournment of the Annual Business Meeting was corrected to 6:30 p.m. This having been done, Richard Stevenson introduced a motion that the minutes of both meetings be approved. Clinton Baker seconded the motion and it was carried.

According to the latest list, the membership of the Academy now stands at 942.

Past-President Frank Barclay had no report to submit.

Several members expressed the opinion that publicity for the Academy in the several news media was unsat-

isfactory. President Mayfield suggested that a committee should handle publicity. At that point, Richard Stevenson volunteered to act as publicity agent.

Clinton Baker had no report for the Reelfoot Lake Biological Station but did submit a report of the Academy Conference held during the AAAS meetings at Berkeley, California, December 27, 1965 in his role as representative of this Academy. The theme of the conference was the role that state science Academies can play in the improvement of science teaching in the respective state colleges and universities. It was suggested that academies sponsor state conferences of scientists to deal with teacher improvement, teacher certification, and upgrading of college courses, especially introductory biology. The Visiting Scientists Program is good, but the Academy should be doing more for college students. The Higher Education Act of 1965 has funds for scientists to play a role in science education. The Office of Education will establish 12 research and development centers. They would like each academy to actively influence public policy as scientists. There are presently considerable differences in quality of science education in colleges. Recent activities have resulted in improvements in high schools, but not in colleges. Many states have a "science advisor to the governor."

There was considerable discussion regarding CUEBS which is a commission supported by the NSF. Nine panels were created. They deal with many aspects of college teaching.

General remarks included the claim that 35% of all high schools are now using BSCS or its equivalent, and this will rise to 65-70% in five years. Each academy should strive for a permanent person as a permanent secretary. Each academy should have itself declared a non-profit organization. A CPA should be hired to audit the books. Incorporation must include a statement regarding the fate of funds if the Academy dissolves. Several Academies have named the AAAS as benefactor.

The NSF will continue to support the Junior Academy activities and the Visiting Scientists Program, and they prefer the continuity of someone for the grants. Virginia and Oklahoma employ a CPA to handle all NSF grants.

Richard Raridon submitted a report for the Collegiate Division.

The Collegiate Division held its annual meeting December 11, 1965, in conjunction with the Senior Academy at the Oak Ridge National Lab. Nearly 200 students were present, most of them also attending sessions on Friday. Nine students presented papers at the Collegiate Section.

Per diem expenses were paid to 183 students and mileage payments were made for 37 cars and 2 buses. 80 students traveled more than 600 miles, round trip. This total expense for students was \$3,336, nearly twice what had been budgeted for

the state meeting with NSF money. This means that we have only about \$300 left to use for the spring regional meetings, for which we spent about \$900 last year. However, we feel this money was well spent at the annual meeting. Many students will be able to attend the meetings this spring without much expense since the meetings will be held in Knoxville, Nashville, and Memphis. NSF was contacted about the possibility of requesting additional funds for this year. They indicated it was possible, but it would take several months to process a request. NSF did mention that our request for funds for 1966-67 appeared to be in good shape.

Roger Rusk discussed the Visiting Scientists Program and submitted the following budget for 1966-67:

A. Visitor Costs	
1. Honoraria:	
135 visits at \$35.00 (average) per visit . . .	\$4,725
2. Travel:	
135 visits at 100 m/visit at 8 cents per mile	1,080
3. Per Diem:	
80 visits at \$8 per visit	640
Total Visitor Costs	\$6,445
B. Operational Costs	
1. Director's Salary	\$ 600
2. Secretarial	1,200
3. Office Supplies	50
4. Publicity	300
5. Postage and Telephone	200
Total Operating Costs	2,350
C. Indirect Costs: 15% of Operational Costs	350
Total Request from NSF	\$9,145

He further announced that he will resign as chairman of the Visiting Scientists Committee. President Mayfield appointed Roger Rusk, Norman Campbell, and Frank Barclay to a special committee whose function is to seek a new chairman for the Visiting Scientists Committee. In his concluding remarks, Roger Rusk requested that the executive committee approve a maximum of \$400.00 for extra visitations to about \$170.00 each. Norman Campbell put the request into a motion, it was seconded by Clinton Baker, and the motion was carried. In behalf of the executive committee members, President Mayfield expressed a vote of thanks and appreciation to Roger Rusk for all he has done for the Visiting Scientists Program.

Gordon Pennebaker submitted the treasurer's report. He discussed all the items of income and expenditure.

From the recommendations of Clinton Baker, the executive committee expressed the feeling that the academy should obtain a charter, incorporate, and become a non-profit organization. Norman Campbell introduced a motion that Robert Wilson be appointed to seek a lawyer in Chattanooga to take care of the legal aspects of the situation. The motion was seconded by James Caponetti, and it was carried. Clinton Baker introduced a motion to the effect that if the Academy should ever dissolve, any remaining funds go to the AAAS. Richard Raridon seconded the motion and it was carried. Gustave Lundberg introduced a motion that a CPA should regularly audit the treasury books. Richard Raridon seconded the motion and it was carried. The members of the executive committee agreed that the University of Tennessee could serve as a permanent address for the Academy; the secretary will take care of this. Also any authorized person who requires money

for a specific purpose should send a written request in the form of a voucher to the treasurer. Thus the voucher would contain another signature besides that of the treasurer.

Gustave Lundberg submitted the Editor's Report and a suggested budget for 1966. His report follows:

The four numbers of Vol. 40 (1965) of the Journal contain 20 research articles of which 10 are in biology, 3 in chemistry, 5 in geology, and 1 each in mathematics and medical sciences. Included also are abstracts of papers presented at the annual meeting of the Academy by members of the Senior and Collegiate Divisions, a report of the Tennessee Science Talent Search, and news items. On hand are 14 papers which have been accepted for publication and 3 others have been submitted to Section Editors for review. Again I wish to express my sincere appreciation to the Section Editors for their excellent work.

Suggested Budget	
Printing (3 issues)	\$3,600
Envelopes (mailing 4 issues)	132
Address to Mailing List and Change of Plates	36
Postage (Second Class U.S., \$40.00; Foreign, \$10.00; Magazines Returned, \$15.00; Manuscripts to Editors, Galleys to Authors, Registered Mail, \$28.00; Mailing Copies Requested, \$10.00; Other Correspondence, \$35.00)	138
Secretarial	385
Telephone and Telegraph	25
Miscellaneous Office Expenses	60
Total	\$4,376

John Bailey submitted a report on the current status of the Junior Academy. As usual the NSF again reduced the monetary size of the grant. For the fiscal year of 1965-66 \$6,048.00 was awarded to the Junior Academy. The amount is such that, at the suggestion of the NSF, the regional meetings had to be stopped. Local groups, however, will be encouraged to hold regional meetings, but at their own expense. To replace regional meetings, John Bailey will contact regional advisors to work out a program and formulate a committee which will screen student research papers and select the meritorious ones who will be invited to attend State Science Day. Each selected student will be accompanied by his teacher. The same plan will be followed for the fiscal year 1966-67 except that fewer students will be asked to participate because the grant was reduced to \$4,970.25. Other expenses also had to be reduced.

John Bailey requested money to help local clubs affiliate with the Junior Academy. Clinton Baker introduced a motion to take \$500.00 from the \$3,000.00 given to the Senior Academy by the Tennessee State Department of Education and give it to John Bailey for that purpose. Gordon Pennebaker seconded the motion and it was carried. Clinton Baker further moved that the treasurer maintain a separate account of how the \$3,000.00 was utilized and submit a written report to the State Department of Education. The motion was seconded by Richard Stevenson and it was carried.

Norman Campbell reminded the members that \$269.00 is available from the Research Grants Committee for faculty members and students. A recent letter to Frank Barclay from the AAAS confirmed this. He submitted the following report of the Research Committee:

During 1965 the following grants were made. On April 7 a grant of \$65.00 was made to John Garavelli, a student at

Messick High School, Memphis, for work on a project on peptide synthesis. A final report from this recipient has been received. On November 9, a grant of \$45.00 was made to Charles R. Smith, a student at University High School, Johnson City, for a waterfowl survey throughout the months November to April on Boone and Patrick Henry Lakes.

On December 13 four other grants were approved. These were as follows:

- 1) to Miss Beatrice Chan, of Siena College, Memphis, \$50.00 for a study of the skin of bats;
- 2) to James C. Wolford II, King College, Bristol, \$110.00 for a study of the mechanism of the cyclization of *o*-benzylbenzophenones;
- 3) to Billy Eugene Wofford, Austin Peay State College, Clarksville, \$75.00 for use in a chromosomal-pigment analysis of Erythronium;
- 4) to John Taylor Duckett, a high school senior of Memphis; \$125.00 to assist in constructing an experimental cloud-chamber and electromagnet.

The above sums were less in each case than those originally requested. The students concerned stated that they could use the reduced amounts advantageously and that they were willing to do so. A balance of approximately \$68.00 remains in the 1965 appropriation from AAAS. Presumably the 1966 appropriation will be available soon after Jan. 1, 1966.

Dr. Campbell volunteered to approach various industrial companies and invite them to become sustaining or supporting members of the Academy. John Bailey introduced a motion which would empower the Research Committee to seek industrial memberships. James Major seconded the motion and it was carried.

President Mayfield requested the members to appoint an Academy representative to the Council of the AAAS and to the Academy Conference at the AAAS meetings. James Caponetti moved that Clinton Baker be named representative. Gustave Lundberg seconded and the motion carried. Gordon Pennebaker thereupon moved that the President-Elect (Norman Campbell) be named as a second representative. Gustave Lundberg also seconded this motion and it was carried. The secretary was then instructed to submit the names of the two representatives to the AAAS.

The secretary was instructed to cast one ballot to elect Clinton Baker Director of the Reelfoot Lake Biological Station.

Clinton Baker expressed the opinion that changes should be made in the membership certificates and application forms. He moved that the membership certificate for new members be made 8 x 10 inches and suitable for framing. Robert Wilson seconded the motion and it was carried. He introduced a second motion stating that the membership application forms should contain an extra statement to the effect that the prospective member can make an optional monetary contribution to the Academy. Norman Campbell seconded the motion and it was carried.

President Mayfield suggested that each officer have his own Academy stationery printed, and have the bill sent to the treasurer. If they do not so desire, then they may instruct the secretary of their wishes.

President Mayfield announced that Richard Stevenson has invited the Academy to hold its Fall meeting on the campus of East Tennessee State University. Clinton Baker converted the invitation into a motion, it was seconded by Norman Campbell, and the motion was carried. The members present agreed that the

meeting will take place on the Thanksgiving holiday weekend.

President Mayfield made a request for approximately \$8,000.00 for Academy expenditures during the next year. Clinton Baker so moved, Richard Stevenson seconded, and the motion carried.

Richard Stevenson then moved that the meeting adjourn. William Ellis seconded, and the motion was carried. The time was 11:55 p.m.

November Meeting, East Tennessee State University

The Executive Committee of the Tennessee Academy of Science was called to order by President Melburn R. Mayfield at 7:45 a.m. on November 25, 1966, at the East Tennessee State University Cafeteria in Johnson City, Tennessee. Members present were Melburn R. Mayfield, Robert L. Wilson, Norman Campbell, Bro. George Carney, William H. Ellis, Frank H. Barclay, Richard Stevenson, Donald Caplenor, John H. Bailey, and Richard J. Raridon. The President asked R. J. Raridon to serve as secretary in the absence of James D. Caponetti.

The minutes of the January Executive Committee meeting, as published in the Journal, were approved.

The Treasurer reported that the audited bank balance as of March 31, 66 was \$8,007.96. The balance as of November 25, 1966 is about \$7,000, but approximately \$2,000 is due for Journal costs. The savings account as of January 7, 1966 was \$3,841.70. The balance for the Reelfoot Lake Biological Station was \$1,641.71 as of November 25, 1966. The Treasurer also reported that he is continuing to work on obtaining tax exempt status for the Academy.

The Editor reported that the July 1966 issue was in press and that proofs had been received for the October 1966 issue. He hopes to get back on schedule by working on the first two issues for 1967 simultaneously. He suggested that the Academy consider appointing a business manager for the Journal. More advertisements are needed, which cost only \$16 per quarter page per issue.

The sponsor of the Tennessee Junior Academy of Science submitted a written report of the TJAS program for 1965-66 and a copy of the NSF proposal for 1967-70. He reminded the Committee that they had already received copies of the *Handbook and Transactions* of the Junior Academy in which the four top student papers for 1966 were published.

The sponsor of the Collegiate Division presented the following written report:

The Collegiate Division held regional meetings at Knoxville College, Peabody College, and Southwestern at Memphis during spring 1966. These meetings were attended by 140 students and faculty and 37 papers were presented. Speakers from Oak Ridge presented talks at luncheons following each meeting.

The East Tennessee region has a new collegiate sponsor, Prof. Robert G. Ziegler of Lincoln Memorial University. The other sponsors are Dr. Robert E. Martin of Tenn. Tech. Univ. and Bro. George Carney of Christian Brothers College.

The Collegiate program for 1965-66 used the entire NSF grant of \$4,200, over \$3,300 of which was spent for the annual

meeting at ORNL. The Academy has received a grant of \$4,670 to support Collegiate activities for 1966-67. A proposal was submitted to NSF on 10-31-66 asking for support for 1967-68. The amount requested was 30% less than for 1966-67 since NSF had indicated that fewer funds would be available. On 11-18-66 NSF called and asked that the request be cut still further. This was done, as indicated by the revised budget request for \$2,479. NSF also said that no funds would be available for this type of program after 1968. New funds will therefore have to be found if the Collegiate Division is to have continued financial support after that time. (Attached to the report were copies of the proposal and the final report for 1965-66.)

The Director of the Visiting Scientist Program presented a progress report and announced that no NSF funds would be available after this school year.

The motion was made and passed to have M. R. Mayfield present a summary of the TAS programs to the State along with a request for additional funds to replace the NSF funds being cut off.

The Chairman of the Research Committee made the following report:

In November and December of 1965 six grants were made. These grants, which were reported in detail to the Executive Committee on January 14, 1966, totaled \$470.00, averaging \$78.33 each. These grants left a balance of \$68.00 available from AAAS from the 1965 allotment.

THE SEVENTY-SIXTH MEETING OF THE TENNESSEE ACADEMY OF SCIENCE

NOVEMBER 25-26, 1966

EAST TENNESSEE STATE UNIVERSITY

The seventy-sixth meeting of the Tennessee Academy of Science was held November 25-26, 1966 at East Tennessee State University. The Committee on Local Arrangements consisted of Richard Stevenson, Chairman, Frank Barclay, and John Bailey; Norman Campbell was program chairman.

A general session and six sectional sessions were held on Friday, November 25. Dr. Walter Herndon, Associate Dean of the College of Liberal Arts, spoke at the Dinner on Friday evening. The Collegiate Division met on Saturday morning, November 26, in two sections.

Annual Business Meeting

The Business Meeting of the Academy was called to order in Room 221 of Science Hall, East Tennessee State University, at 5:30 p.m. on November 25, 1966 by President Melburn R. Mayfield. In the absence of the regular secretary, the President asked R. J. Raridon to serve as Secretary of the business meeting. The minutes of the business meeting of 1965, published in the Journal, were approved.

A motion was passed that the applications for membership be approved. J. O. Younghanse, Oak Ridge, was appointed as chairman of the membership committee.

Reports of the Treasurer, the Editor, the Sponsor of the Collegiate Division, the Sponsor of the Junior Academy, and the Director of the Visiting Scientist Program were approved. It was announced that NSF funds

On January 1, 1966, an additional sum of \$269.00 became available, making a total of \$337.00 available at that time. One application, that of Miss Gayle Burns, of Central High School, Memphis, has just been approved for \$50.00, to be used on studies of dimethyl sulfoxide. Three other applications are currently being considered, and others are expected to be received. It is anticipated that most of the funds available in 1966 will be awarded before January 1, at which time an additional \$269.00 will presumably be made available by AAAS.

The motion was made and passed that the Academy endorse the principles set forth in the letter from W. L. Criley to Prof. Ed Clebsch dated Nov. 21, 1966, concerning the expansion of the Reelfoot Lake Biological Station.

The motion was made and passed that the Academy pay the university rate for expenses incurred by M. R. Mayfield to attend the AAAS meeting in Washington, D.C.

The date of the next meeting of the Executive Committee was set for January 13, 1967, at Tennessee Technological University.

The meeting was adjourned at 10:15 a.m.

would be cut off for the VSP after this year and for the CD after next year.

The Chairman of the Fellows Committee presented the following members of the Academy as nominees by the committee to be named Fellows of the Academy. Furthermore, those who are members of the AAAS are recommended also for nomination as Fellows in that organization.

William A. Arnold, Biology Division, Oak Ridge National Laboratory, Oak Ridge.
 Donald Caplenor, Tennessee Technological University, Cookeville.
 Charles J. Chance, Tennessee Valley Authority, Norris.
 Carl M. Hill, Tennessee Agricultural & Industrial Univ., Nashville.
 Paul Hollister, Tennessee Technological University, Cookeville.
 Herman O'Dell, East Tennessee State University, Johnson City.
 Arthur D. Oxley, Lambuth College, Jackson.
 Arthur Stupka, U. S. Forest Service, Retired, Gatlinburg.
 Abraham H. Wiebe, Tennessee Valley Authority, Retired, Norris.
 Charles W. Wilson, Jr., Vanderbilt University, Nashville.
 J. Donald Wood, State of Tennessee, Dept. of Education, Nashville.

A motion was passed that those named be made Fellows in the Academy and that they be recommended, if qualified, as Fellows of the AAAS.

There was no report from the Necrology Committee.

The Chairman of the Research Committee announced that one grant had been made and several others were pending. It was anticipated that the balance of \$287 would be awarded before January 1.

The Chairman of the Nominating Committee proposed W. Roger Rusk for President-Elect, the only

office open at this time. There were no nominations from the floor, and a motion was passed that, with the unanimous consent of the members present, the Secretary be instructed to cast one ballot representing the unanimous vote of the members present.

The Resolutions Committee report was read and approved. (A copy is appended to these minutes.)

The President stated that the Academy was invited to hold its 1967 Annual Meeting at Tennessee Technological University in Cookeville on the weekend before Thanksgiving.

The Annual business meeting adjourned at 6:30 p.m.

REPORT OF THE RESOLUTIONS COMMITTEE OF THE
TENNESSEE ACADEMY OF SCIENCE
1966

WHEREAS, the Tennessee Academy of Science, including the Collegiate Division, is enjoying a most pleasant, profitable, and well-organized series of meetings at East Tennessee State University, and

WHEREAS, the success of these meetings has resulted from the efforts of the officers and sponsors of these

organizations, the chairmen of the respective sections, the members of the Committee on Local Arrangements, Dr. Richard Stevenson, Chairman, Dr. Frank Barclay, Dr. John Bailey, from the recognition given the meetings by the press, television and radio stations, and from the generous hospitality of our host institution.

BE IT RESOLVED, therefore, that the Tennessee Academy of Science express its appreciation to these and all others who have contributed to the success of these meetings, and

BE IT FURTHER RESOLVED that these resolutions be spread in the minutes of the Tennessee Academy of Science and published as a part of the Proceedings of this meeting and that copies be sent to Dr. Burgin E. Dossett, President of East Tennessee State University, and to Dr. Richard Stevenson, Chairman of the Committee on Local Arrangements.

Respectfully submitted by the Resolutions Committee:

H. R. DeSELM

FLOYD BROWN

WILLIAM H. ELLIS, *Chairman*

TENNESSEE ACADEMY OF SCIENCE
TREASURER'S REPORT

January 1, 1964—March 31, 1966

G. B. PENNEBAKER, Treasurer
Tennessee Technological University, Cookeville

<i>Accounts</i>	<i>Income</i>	<i>Expenditures</i>
President's account		\$ 455.76
Stamps, stationery, telephone, etc.		
Committee account		760.37
Executive committee expenses		
Secretary's Office		1,671.97
Account	\$1,200.00	
Office expenses	471.97	
Editor's Office		1,359.90
Account	1,250.00	
Office expense (phone, stationery, postage, etc.)	109.90	
Treasurer's Office		2,064.80
Account	1,425.00	
Office expenses (stamps, membership cards, phone, and two filing cabinets)	639.80	
Journal Account	\$6,951.25	6,350.69
Subscriptions	\$1,532.76	
Sale of Journals	46.85	
Reprints	314.00	
Advertisement	1,318.39	
Use of cuts	140.00	

Excess illustrations	38.00		
Membership fees (7,122.50 x ½)	3,561.25		
Printing and mailing			6,350.69
Membership 7,122.50 x ½			
Regular		3,561.25	
744 @ 4.00	3,096.00	5,498.50	
480 ½ @ 5.00	2,402.50		
Sustaining 53 @ 10.00			
+ 6.00		536.00	
H.S.T. & St. 269 ½			
@ 2		593.00	
Life 2 @ 75.00		150.00	
Institutional 2 @ 50.00		100.00	
Industrial		245.00	
1 @ 50.00			
5 @ 25.00	50.00		
2 @ 20.00	125.00		
2 @ 15.00	40.00		
	30.00		
NSF Programs		7,868.25	
Indirect costs		5,081.22	
Vis. Sci. Prog.		3,002.36	
GE1848 (1963-64)*	1,374.76		
GE4284 (1964-65)	1,627.60		
Jr. Academy		1,748.05	
GE1644 (1963-65)	962.57		
GE4284 (1964-65)	785.48		
Col. Division		330.81	
GE1818 (1963-64)	185.68		
GE4530 (1964-65)	145.13		
Overpayment		2,787.03	
*1,624.76 - 250.00 collected in 1963.			
Special Projects			3,358.15
Academy Meeting (AAAS + Okla.)		811.22	
Junior Academy Support		1,410.93	
Science Talent Search		666.00	
Research Grants		470.00	
Transfer of Funds			6,550.00
Reelfoot Lake acct. from St. Dept. Ed.		3,000.00	
Visiting Science Program (a loan)		1,250.00	
Colleciate Academy (a loan)		2,300.00	
Miscellaneous			253.00
Typewriter Rental		240.00	
Contribution to C. M. Goethe Fund		10.00	
Refund of Membership fee		3.00	
Grants-in-Aid		9,520.00	
State Dept. of Ed.	9,000.00		
AAAS	470.00		
Goethe, C. M.	50.00		
Cold Checks			19.20
Totals		Income 27,900.75	Expend 22,843.84
Bank Balance		2,951.03	8,007.96
		30,851.78	30,851.78

TENNESSEE ACADEMY OF SCIENCE TREASURER'S REPORT

April 1, 1966—December 31, 1966

ROBERT L. WILSON, Treasurer
University of Chattanooga, Chattanooga

<i>Receipts:</i>				
Bank Transfer in Membership:	\$ 2,160.00		\$ 2,431.00	\$ 8,007.94
Regular	271.00			
Other			630.00	
Journal Subscriptions			262.47	
Sale of Publications			92.50	
Advertising			10,887.54	
NSF Grants			25.00	
Trane Co. Grant			250.00	
Reelfoot Lake Repayment				14,578.51
Total Receipts				\$22,586.45
<i>Disbursements:</i>			\$ 252.67	
President's Office Expenses				
Secretary:	\$ 343.83			
Account	383.82		727.65	
Office Expense				
Editor:	400.00			
Account	42.25		442.25	
Office Expense				
Treasurer:	600.00			
Account	373.57		973.57	
Office Expense				
Executive Committee Expenses			372.16	
Printing and Mailing of Journal			2,928.55	
Science Talent Search Expenses			503.90	
Reelfoot Lake Biological Station			3,100.16	
NSF Programs:				
Jr. Academy	2,500.00			
Collegiate Division	500.00			
Visiting Science Program	2,000.00		5,000.00	
Reelfoot Lake Scholarship Payment			250.00	
Equipment Rental			220.90	
AAAS Research Grant			70.00	
Refund to NSF Grants Account			194.04	
Miscellaneous Expenses			147.34	15,183.19
Balance				7,403.26
Less Outstanding Checks				80.57
Balance per Bank Statement, December 30, 1966				\$ 7,322.69

REPORT OF THE AUDITOR

I have examined the Treasurer's Report of cash receipts and disbursements, operations account, Tennessee Academy of Science for the period, April 1, 1966 to December 31, 1966.

In my opinion, on the basis of information made available to me, the statement fairly presents the transactions of the operations account.

RAYFORD J. McLAUREN, Auditor

January 13, 1967

NEW MEMBERS 1966

- Airee, Shakti K., Dept. of Chemistry, Univ. of Tenn. Martin Branch, Martin, Tenn. 38237.
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NEWS OF TENNESSEE SCIENCE

(Continued from Page 37)

in North America and Asia, in company with a Japanese botanist and graduate student. He also attended the Pacific Science Congress in Tokyo, Japan, in August, after delivering his address as immediate past president of the Botanical Society of America at the A.I. B.S. meetings. Dr. Larry Jones, who has just completed his first year in the department, worked as a research participant in the Biology Division of Oak Ridge National Laboratory during the summer. Dean Walter Herndon and Dr. Ray Holton received a contract with the U.S. Army for the study of certain aspects of the effect of environmental and physiological factors on algae reproduction. Dr. J. S. Olson, part-time professor in the department who is with ORNL and who is supported by funds from the Ford Foundation, is Project Director for a grant from the National Science Foundation in an Advanced Science Seminar Project for the training of systems ecologists. Dr. Bernard G. Patten from ORNL is teaching the fall and winter quarters of this sequence.

Dr. Edward E. C. Clebsch was promoted to Associate Professor. He will administer a contract with the National Park Service in the amount of \$11,600 for

the next two years to investigate factors related to the formation and maintenance of the grass and heath balds of the Great Smoky Mountains. He also administers a contract in the amount of \$12,500 with Union Carbide Corporation to continue services in connection with the cataloging, identification, collection, and processing of soil and vegetation samples from the Oak Ridge area. Dr. Clebsch also administers a contract with the Tennessee Game & Fish Commission for the study of grasses as potential wildlife plants in Tennessee. The graduate student on the last project, Mr. Ken E. Rogers, spent the summer at the U. S. National Herbarium in Washington under the support of The Association for Tropical Biology.

Dr. Sandra Bell is on leave for this year for the purpose of doing research in the Department of Genetics at the National Agriculture Institute in Paris, France. Dr. A. Murray Evans taught a course in pteridology at the Mountain Lake Biological Station in the first term this past summer. He continues to administer a 3-year NSF grant for \$26,000 for evolutionary studies in tropical ferns.