

PROCEEDINGS

*of the*

Indiana Academy  
*of Science*

*Founded December 29, 1885*

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VOLUME 54

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R. C. CORLEY, Editor

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Sixtieth Annual Meeting

BUTLER UNIVERSITY

November 9, 10 and 11, 1944

Copies of the Proceedings may be purchased through the State Library, Indianapolis, Indiana, at \$3.00 per volume. All items sent in exchange for the Proceedings and all communications to officers of the Academy, when their names and addresses are not known, should also be sent to the State Library.

Reprints of certain parts of recent volumes of the Proceedings are available for distribution as follows: copies of the constitution and by-laws (Vol. 44), and complete membership list (Vol. 50), may be secured by members elected subsequent to the publication of those volumes; copies of the codified list of duties of officers (Vol. 48) may be secured by officers, divisional chairmen, and chairmen of committees; and copies of the necrology can be supplied to relatives and friends of the deceased members. Inquiries concerning these reprints should be addressed to the Secretary of the Academy, Dr. Winona H. Welch, DePauw University, Greencastle, Indiana.

Reprints of technical papers in recent volumes can often be secured from the authors. They cannot be supplied by the State Library nor by the officers of the Academy.

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Application blanks for membership are available from members of the Membership Committee or from the Secretary.

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#### Excerpts from the Constitution of the Indiana Academy of Science

##### Article I.

Sec. 2. The objects of this Academy shall be scientific research and the diffusion of knowledge concerning the various departments of science. The Academy shall promote intercourse between men engaged in scientific work, especially in Indiana, assist by investigation and discussion in developing and making known the educational, material and other resources and riches of the state, prepare for publication such reports of investigation and discussion as may further the aims and objects of the Academy as set forth in these articles.

##### Article II.

Sec. 2. Any person interested in any department of scientific work shall be eligible to membership. They shall pay an admission fee of one dollar and one dollar dues and thereafter an annual fee of one dollar.

Sec. 4. The Indiana Academy of Science shall actively promote the organization and operation of local science clubs in connection with secondary schools of the state. Such of these clubs as elect to become members shall constitute the Indiana Junior Academy of Science.

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## OFFICERS AND COMMITTEES FOR 1944

### OFFICERS

- President*, C. A. MALOTT, Indiana University.  
*Vice-President*, R. B. ABBOTT, Purdue University.  
*Secretary*, WINONA H. WELCH, DePauw University.  
*Treasurer*, W. P. MORGAN, Indiana Central College.  
*Editor*, R. C. CORLEY, Purdue University.  
*Press Secretary*, C. M. PALMER, Butler University.  
*Trustees of Academy Foundation* (term 4 years): J. S. WRIGHT, Eli Lilly and Company (term expires 1944), chairman; F. B. WADE, Shortridge High School (term expires 1947).  
*Committee for Bonding of Trustees*: H. L. BRUNER, Butler University, Indianapolis, chairman; W. A. COGSHALL, Indiana University, Bloomington.  
*Research Grant Committee*: A. L. FOLEY, Indiana University (term expires 1946); E. G. MAHIN, University of Notre Dame (term expires 1947); JOHN S. WRIGHT, Indianapolis (term expires 1948); M. S. MARKLE, Earlham College (term expires 1944); H. E. ENDERS, Purdue University (term expires 1945); C. A. MALOTT, Indiana University (ex officio); WINONA H. WELCH, DePauw University (ex officio).

### DIVISIONAL CHAIRMEN

- Anthropology*, GEORG K. NEUMANN, Indiana University.  
*Bacteriology*, LYLE A. WEED, Indiana University Medical Center.  
C. M. PALMER, Butler University, Vice-Chairman.  
*Botany*, BENJAMIN H. SMITH, Indiana State Teachers College.  
*Chemistry*, F. B. WADE, Shortridge High School, Indianapolis.  
*Geology and Geography*, A. H. MEYER, Valparaiso University.  
*History of Science*, C. O. LEE, Purdue University.  
*Mathematics*, PAUL M. PEPPER, University of Notre Dame.  
*Physics*, MASON E. HUFFORD, Indiana University.  
*Psychology*, H. H. REMMERS, Purdue University.  
*Zoology*, W. H. HEADLEE, Indiana University School of Medicine.

### EXECUTIVE COMMITTEE

(Past Presidents, Officers, Divisional Chairmen, and  
Chairmen of Standing Committees)

- R. B. Abbott, C. A. Behrens, H. L. Bruner, S. Burrage, W. A. Cogshall, R. C. Corley, E. R. Cumings, J. J. Davis, C. C. Deam, W. E. Edington, H. E. Enders, A. L. Foley, R. C. Friesner, W. G. Gingery, R. E. Girton, W. H. Headlee, M. E. Hufford, Theodor Just, C. O. Lee, Eli Lilly, E. G. Mahin, C. A. Malott, E. S. Martin, M. G. Mellon, A. H.

Meyer, B. E. Montgomery, W. P. Morgan, G. K. Neumann, C. M. Palmer, F. Payne, P. M. Pepper, J. E. Potzger, R. R. Ramsey, H. H. Remmers, W. E. Ricker, B. H. Smith, F. B. Wade, F. N. Wallace, Paul Weatherwax, L. A. Weed, Winona H. Welch, J. S. Wright, T. G. Yuncker.

#### BUDGET COMMITTEE

(President, Secretary, Treasurer, Editor, and Chairmen of Committee on Relation of Academy to State, Program Committee, and Library Committee)

R. C. Corley, W. G. Gingery, C. A. Malott, W. P. Morgan, J. E. Potzger, F. N. Wallace, Winona H. Welch.

#### STANDING COMMITTEES

(Appointed by the President, Chairman of each committee named first)

*Auditing:* E. S. Martin, Arsenal Technical H. S., Indianapolis; K. S. Means.

*Biological Survey:* W. E. Ricker, Indiana University; R. M. Kriebel, W. P. Allyn, H. O. Deay, H. H. Michaud, B. E. Montgomery, C. M. Palmer, Dorothy Parker, Winona H. Welch.

*Invitations:* R. C. Friesner, Butler U.; W. N. Kellogg, O. B. Christy, J. F. Mackell, E. F. Degering.

*Junior Academy of Science:* H. E. Enders, Purdue U.; W. P. Allyn, O. B. Christy, M. S. Markle, C. L. Porter, F. B. Wade, M. M. Williams, T. G. Yuncker.

*Library:* W. G. Gingery, Washington H. S., Indianapolis; Nellie M. Coats, R. C. Friesner.

*Membership:* R. E. Girton, Purdue U.; F. J. Allen, G. F. Hennion, W. E. Martin, J. E. Potzger, J. E. Switzer.

*Nominations:* H. E. Enders, R. C. Friesner, W. E. Edington.

*Program:* J. E. Potzger, Butler U.; K. S. Means, N. S. Pearson.

*Publication of Proceedings:* R. C. Corley, Purdue U.; P. D. Edwards, Paul Weatherwax.

*Relation of Academy to State:* F. N. Wallace, State Dept. of Conservation; E. Y. Guernsey, Eli Lilly, H. J. Reed, J. S. Wright.

*Representative on Council of A.A.A.S.:* H. E. Enders, Purdue U.

*Resolutions:* B. E. Montgomery, Purdue U.; O. B. Christy, G. D. Koch.

# PROGRAM OF THE WINTER MEETING

BUTLER UNIVERSITY

November 9-11, 1944

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THURSDAY, NOVEMBER 9

7:30 P. M.

Meeting of the Executive Committee

FRIDAY, NOVEMBER 10

9:30 A. M. General Session

Address of Welcome. President M. O. Ross, Butler University.

Response. President C. A. Malott.

Necrology. Will E. Edington, DePauw University.

*Men of Science in Indiana Past and Present.* John S. Wright, Eli Lilly Company, Indianapolis.

*A Critique of Science,* Carroll D. W. Hildebrand, DePauw University.

*A Historian Views Science.* Louis M. Sears, Purdue University.

## EXHIBITS.

1. Miss Nellie Coats, An exhibit of the Academy of Science Library.
2. Bird portraits, Rev. John W. Baechle, St. Joseph's College.

11:45 A. M. and 2:30 P. M. Sectional Meetings

6:00 P. M. Annual Dinner

Business Session.

President's Address. Significant Features of the Indiana Karst.  
President Cloyde A. Malott, Indiana University.

SATURDAY, NOVEMBER 11

9:00 A. M.

Taxonomists Meeting

# MINUTES OF THE EXECUTIVE COMMITTEE

INDIANAPOLIS, November 9, 1944

The Executive Committee of the 60th session of the Indiana Academy of Science was called to order by President Malott in the Lincoln Room, Hotel Lincoln, at 7:30 p. m. The reports of officers and committee representatives were presented and accepted as follows:

**Academy Trustee.** Report of John S. Wright, Frank B. Wade and W. P. Morgan, Trustees of the Foundation Fund, Indiana Academy of Science, for the year 1943-1944.

Balance from the previous year.....	\$ 477.62
Total receipts .....	396.39
Bonds called .....	2,600.00
<b>Total .....</b>	<b>\$3,474.01</b>

## Expenditures

Series "G" U. S. Treasury Bonds.....	\$3,400.00
Collection charges .....	.25
	<hr/>
	3,400.25

Cash balance at Union Trust Company.....	\$ 73.76
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## Assets in the Fund as of October 28, 1944

Five \$1,000.00 U. S. Savings Bonds Series "D"—Cost .....	\$ 3,750.00
\$6,400.00 U. S. Treasury Series "G" Bonds—Cost .....	6,400.00
One \$100.00 Muncie Masonic Temple Association Muncie Bond—Par	100.00
Six shares Standard Oil of Indiana Common Stock—Par.....	150.00
	<hr/>
<b>Total at par or cost.....</b>	<b>\$10,400.00</b>

**Treasurer.** W. P. Morgan presented a tentative financial report for the period from January 1 to October 31, 1944. His final report, approved by the Auditing Committee at the end of the year, follows:

## Receipts

Balance on hand January 1, 1944 .....	\$1,413.46
Dues and initiation fees .....	911.00
A.A.A.S. refund for research grants .....	175.00
Designated gifts .....	300.00
Author's reprints Vol. No. 51.....	6.38
Author's reprints Vol. No. 52.....	360.90
Author's reprints Vol. No. 53.....	106.86
Publications sold by librarian.....	16.00
Refund from safety box rental.....	3.00
	<hr/>
	\$3,292.60



**Disbursements**

1—Program Committee .....	\$ 101.77	
2—Editor .....	200.00	
3—Expenses of Secretary .....	45.38	
4—Expenses of Treasurer .....	92.00	
5—Mailing Proceedings .....	36.72	
6—Stationery .....	91.67	
7—Lena Willkie—work in preparation of 50- year index .....	30.25	
8—Surety Bond and Safety Box rental .....	31.00	
9—*Research grant Dr. A. L. Foley .....	75.00	
10—Cost of reprints Vol. No. 52 .....	369.27	
11—Cost of reprints Vol. No. 53 .....	307.38	
12—Purchase of books for library .....	7.16	
13—Research grant Dr. J. A. Potzger .....	50.00	
14—Research grant Dr. W. E. Martin .....	37.50	
15—Refund to officers F. B. Wade .....	2.96	
		\$1,478.06
† Balance on hand .....		1,814.54
		<hr/>
		\$3,292.60

\* Granted in 1943 but check had not cleared when 1943 accounts were prepared for audit.

† Balance includes \$569.25 in gifts, \$69.75 is designated for use in completing work on 50-year index and \$500 is to be used in the preparation of "Indiana Men of Science."

(Signed) W. P. MORGAN, *Treasurer.*  
 (Signed) ERSIE S. MARTIN }  
 (Signed) KARL S. MEANS } *Auditors.*

**Auditing Committee.** E. S. Martin reports the accounts of the Academy Trustees and the Treasurer to be in perfect condition.

**Bonding Committee.** H. L. Bruner reported that the cost of bonding, \$25.00, had been paid to the Hartford Accident and Indemnity Company, Indianapolis, Indiana.

The resignations of H. L. Bruner and W. A. Cogshall were accepted with regret. The Secretary was instructed to send notes of appreciation to these members who have served on this committee over a period of many years.

**Editor and Publication of Proceedings.** R. C. Corley reported that 9700 reprints had been mailed to the authors, 1600 copies of the Proceedings had been printed, 1000 of which would be cloth bound, and that the volume is composed of 223 pages, at a cost of \$1305.13.

**Research Grant.** A. L. Foley reported that the committee had made a grant of \$75.00 to Walter E. Martin, Department of Zoology, DePauw University.

**Biological Survey.** W. E. Ricker presented a history and summary of the work of this committee to date, copies of which are in the files of the Secretary. The activities of the committee, although retarded due to war conditions, are being continued.

**Fifty-Year Index.** Due to the death of George Hume Smith who had been preparing the Index, Ray C. Friesner, chairman of the committee, has continued the work and presented a progress report.

**Library Committee.** Nellie M. Coats, Academy Librarian, gave a splendid report of the accomplishments of this committee since the Academy Library was placed in the care of the Indiana State Library in 1898. The Academy Library consists of 3756 volumes. This fiscal year 191 volumes were bound at a cost of \$207.13. The library's serial holdings are listed in the *Union List of Serials in Indiana Libraries* and in the Gregory *Union List of Serials*, second edition. Miss Coats requested that members return extra Proceedings for use in library exchanges. The Academy members enjoyed the library exhibit prepared by Miss Coats. J. S. Wright expressed on behalf of the Academy our deep appreciation of Miss Coats' interest in and splendid care of the Indiana Academy of Science Library.

**Press Secretary.** C. M. Palmer released for publication to approximately 275 newspapers of Indiana a 500-word article concerning the 1944 Academy sessions, through the Publicity Office of Butler University. The file of photographs of Academy Officers is in the Indiana State Library. Members are urged to send other photographs and papers of historic interest which are worthy of preservation in the library file. Important letters written by Indiana's early scientists should be saved for future reference.

**Membership.** R. E. Girton presented a tentative report.

**Junior Academy of Science.** H. E. Enders reported one additional club, the T-Square Club of Gary, Indiana, making a total of 52 clubs. The gasoline curtailment has made it impossible to hold the annual meeting in conjunction with the Indiana Academy of Science this year. The High School Science Clubs of the Indianapolis area held a joint meeting in connection with the Academy.

**Relation of Academy to State.** F. N. Wallace reported that the committee had requested an increase of the state appropriation from \$1500.00 to \$2000.00 per year to care for the increase in cost of publication of the Proceedings.

**Relation of Academy to A.A.A.S.** H. E. Enders, Academy Representative, was unable to attend the meeting of the twenty affiliated State and other Academies in Cleveland, Ohio, September 11, 1944.

**Nominations.** H. E. Enders presented the following names for election as Fellows:—Francis Hole, Geology, Earlham College; Dorothy Parker, Botany, Notre Dame University; Walter E. Martin, Zoology, DePauw University; Raymond M. Cable, Parasitology, Purdue University, and K. K. Chen, Pharmacology, Eli Lilly Co.

**Membership Emeritus.** B. D. Myers, Professor of Anatomy, Indiana University, was elected to Membership Emeritus.

**Invitations.** President Malott announced further appointments to this committee:—R. C. Friesner, chair., W. N. Kellogg, O. B. Christy, J. F. Mackell, and E. F. Degering.

**Old Business.** W. E. Edington, chairman of committee, presented plans for the History of Science in Indiana, including biographies of Indiana scientists. Executive Committee recommended that his plans be carried out.

T. G. Yuncker, chairman of committee, P. D. Edwards, and L. S. McClung presented the procedure for affiliation of Indiana associations or societies of biological, mathematical, and physical sciences with the Academy.

It is recommended that the Indiana Academy of Science invite all associations or societies of the biological, mathematical and physical sciences now organized and holding meetings in Indiana to become affiliated with the Academy of Science if such relationship does not already exist.

Affiliation is to imply that such organizations shall hold one of their meetings at the same time and place as the annual fall meeting of the Academy.

Members of the affiliated group should be invited to become members of the Academy though such membership would not be required. Such affiliated non-Academy members would participate in all of the privileges and activities of the Academy at the annual meeting with the exception of voting or holding office.

Non-Academy members would have the privilege of presenting papers before their section of the Academy according to the regulations of the Academy and section.

Publication in the Proceedings of the Academy would not be open to those who were not members of the Academy. Abstracts of such papers may, however, be published if approved by the editorial board of the Academy.

Representation in the Academy would be through a representative of their section who must be a member of the Academy. This representative would be a member of the Executive Committee.

The Chairman of the Program Committee or the President of the affiliating organization should work with the chairman of the related Academy section in the development of the joint program if this is desirable. If separate programs are to be scheduled, the chairman of the Academy section most nearly related to the affiliating organization should be informed of the program of the affiliating organization.

It is believed that all sciences which might become thus affiliated are already represented by a section in the Academy. The establishment of any new section is to be at the discretion of the Executive Committee.

These plans were adopted and the committee instructed to continue for a few years, extending invitations to said societies and making necessary arrangements for affiliation.

**New Business.** J. S. Wright was elected to succeed himself as Academy Trustee.

R. C. Friesner, chairman, and Scott McCoy were elected to committee on Bonding of Trustees.

T. G. Yuncker was elected to Research Grant Committee.  
Adjournment, 10:00 p. m.

## MINUTES OF THE GENERAL SESSION

BUTLER UNIVERSITY, November 10, 1944

President M. O. Ross, Butler University, delivered the Address of Welcome. President Malott responded in behalf of the Academy.

W. E. Edington presented the Necrology.

Minutes of the Executive Committee meeting of November 9, 1944, were read by the Secretary and approved by the Academy.

Following the annual dinner in the Travertine Room of Hotel Lincoln, R. E. Girton presented sixty-five applications for membership. The Secretary was instructed to cast an unanimous ballot for the sixty-five applicants.

H. E. Enders read the nominations of the committee as follows:—*President*, M. S. Markle, Earlham College; *Vice-President*, J. F. Mackell, Indiana State Teachers College, Terre Haute; *Secretary*, Winona H. Welch, DePauw University; *Treasurer*, W. P. Morgan, Indiana Central College; *Editor*, R. C. Corley, Purdue University; and *Press Secretary*, C. M. Palmer, Butler University.

The Divisional Chairmen elected in the sectional meetings for 1945 were announced as follows:—*Anthropology*, J. C. Householder, Indianapolis; *Bacteriology*, C. M. Palmer, Butler University; *Botany*, R. E. Girton, Purdue University; *Chemistry*, C. W. Holl, Manchester College; *Geology and Geography*, E. R. Smith, DePauw University; *History of Science*, John S. Wright, Indianapolis; *Mathematics*, Juna L. Beal, Butler University; *Physics*, R. E. Martin, Hanover College; *Psychology*, W. N. Kellogg, Indiana University, and *Zoology*, W. R. Breneman, Indiana University.

R. C. Friesner announced that the Committee on Invitations had selected Butler University for the 1945 Fall Meeting of the Academy.

**A Tribute.** W. E. Edington expressed congratulations in behalf of the Academy to the members who have been in the organization fifty years or longer:—John S. Wright, Arthur L. Foley, Henry L. Bruner, William Lowe Bryan, and two charter members, George W. Benton and Henry A. Huston.

**Resolutions.** B. E. Montgomery expressed on behalf of the Academy thanks and appreciation to the members of the Butler University staff and to the management of the Hotel Lincoln for their work in making this sixtieth session of the Academy pleasant and successful. A particular expression of appreciation was extended to J. E. Potzger and other members of the program committee, to R. C. Friesner, to President M. O. Ross of Butler University, and to Joseph Lautner, Director, and the members of the Jordan-Butler Philharmonic Choir. Thanks and appreciation were expressed to Louis M. Sears and C. D. W. Hildebrand for the excellent discussions which they brought to the Academy in the Morning General Session.

Vice-President R. B. Abbott introduced President Clyde A. Malott who delivered his Presidential Address on Significant Features of the Indiana Karst.

The 60th annual\* meeting of the Indiana Academy of Science, with a general attendance of 201 and a dinner attendance of 130, was adjourned.

WINONA H. WELCH, *Secretary*

### TAXONOMISTS MEETING

JOHN E. SEYBERT, Botanist, Eli Lilly Co., Chairman

The Plant Taxonomists held their meeting on Saturday morning at Butler University. J. E. Potzger, Butler University, was elected 1945 chairman.

### ENTOMOLOGISTS MEETING

RALPH MORRIS, Assistant State Entomologist, Chairman

No meeting was held because of commitments of many entomologists preventing their attendance.

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\* No spring meeting was held during 1944.

## NEW MEMBERS 1944

Adams, Mr. Wm. Richard, 432 S. Walnut, Bloomington	A
Azbell, Mr. William, 203 Bloomington St., Greencastle	Ph
Benedict, Mr. Paul Francis, 593 Main Cross St., Vevay	Pre-Med
Billman, Prof. John H., 717 S. Henderson St., Bloomington	C
Bittles, Mr. James A., 408 E. Walnut St., Greencastle	C
Bloodgood, Prof. Don E., 915 N. Salisbury St., W. Lafayette	S. Eng.
Brankle, Mr. Gordon B., 2743 Guilford Ave., Indianapolis	Bo Z
Briggs, Mr. John P., 1226 N. Illinois St., Indianapolis	C Z
Buls, Mr. Erwin J., Valparaiso Univ., Valparaiso	G
Coffman, Mrs. Lyla Maye C., 415 Victoria St., South Bend	A
Detmer, Miss Wanda Lee, 408 Park Avenue, Aurora	G Ph
DeVol, Prof. Charles E., Marion College, Marion	Bo Ba
Doub, Miss Margaret, 3355 Carrollton Ave., Indianapolis	Z
Erselcuk, Mr. Muzaffer M., 348 S. Grant, Bloomington	G Econ
Fessenden, Prof. William P., 3724 S. Wigger St., Marion	C
Freeman, Prof. W. Otis, Dept. Geology and Geog., I. U., Bloomington	G
Gerking, Dr. Shelby Delos, 518 East Second St., Bloomington	Z
Graham, Mr. Jack W., Longden Hall, Greencastle	Ph
Grayson, Mr. Richard R., 1922 South Third Ave., Maywood, Illinois	Med
Green, Mr. Clinton C., 516 East University St., Bloomington	G M
Griffith, Prof. Wallace Clayton, 1009 S. College, Greencastle	M
Hayes, Mr. John C., 312 Main, Crawfordsville	C
Herman, Mr. David T., 728 E. 3rd St., Bloomington	Ps
Hicks, Prof. R. Lowell, Franklin College, Franklin	C
Hill, Mr. Harris Ernest, 728 E. Third, Bloomington	Ps
Hill, Dr. R. T., 841 Sharidan Rd., Bloomington	Z
Hodson, Miss Margaret E., Marion College, Marion	B Z
Howland, Dr. Warren E., 610 S. 9th St., Lafayette	C Eng
Kaslow, Dr. Christian E., 414 Ballantine Rd., Bloomington	C
Kimball, Dr. Grace C., 2105 E. Walnut St., Evansville, 14	Ba
Kleckner, Dr. Albert L., Pitman-Moore Co., 1200 Madison, Indianapolis	Bo Z
Koontz, Prof. Dale F., 633 Anderson St., Greencastle	Ph
Lash, Mr. Robert F., 1412 N. Walnut, Danville, Ill.	Pre Med
Leskon, Miss Olive, Tolleston School, 1700 Taney, Gary	M
Lundin, Mr. Robert W., 720 E. 3rd St., Bloomington	Ps
Mansell, Mr. Othel Phillips, 604 Anderson St., Greencastle	Ph
McKissick, Mr. Wendell B., Allison Eng. Corp., Maywood, Plant No. 5	Bio Chem
Milner, Mrs. Elizabeth, 1150 N. Meridian St., Indianapolis	A
Morgan, Mrs. Ethel M. Chapin, 707 S. Locust St., Greencastle	Ph
Morris, Mrs. Mabel S., Indianapolis Water Co., Indianapolis	Bo Ba
Murray, Mr. F. Joseph, 1022 First St., W. Lafayette	Ba
Newman, Mr. Samuel J., 375 West End Ave., New York 24, New York	Pre-Med

Niccum, Mr. Warren L., 1121 South Eighth St., Goshen.....	Pre-Med
Overman, Mr. Paul W., 720 Atwater Avenue, Bloomington.....	M
Powell, Mr. Clarence E., Eli Lilly Co., 740 S. Ala. St., Indianapolis.....	Bo
Pratt, Mr. Darrell Bradford, 322 South Grant Street, W. Lafayette....	Ba
Price, Prof. Dennis H., 2900 College Ave., Terre Haute.....	Ps
Rediger, Prof. Milo A., Taylor Univ., Upland, Ind.....	Ps
Robinson, Prof. Sid, 315 Mitchell Drive, Bloomington.....	Z
Roller, Prof. Duane, Physics Dept., Wabash College, Crawfordsville...	Ph
Schmock, Rev. Norman G., St. Joseph's College, Collegeville.....	G
Shirley, Dr. Mary Margaret, Psychology Dept., Ind. U., Bloomington..	Ps
Sloan, Mr. Donald Eugene, 37 S. Harris Street, Indianapolis 8.....	Bo
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