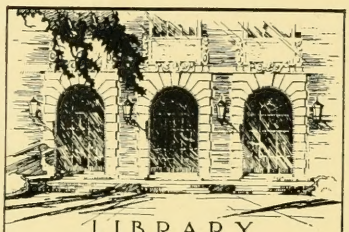


LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

507
F45
1936-38

CENTRAL CIRCULATION BOOKSTACKS

The person charging this material is responsible for its renewal or its return to the library from which it was borrowed on or before the **Latest Date** stamped below. **The Minimum Fee for each Lost Book is $50.00.**

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

TO RENEW CALL TELEPHONE CENTER, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

APR 21 1995

APR 26 1995

When renewing by phone, write new due date below previous due date.

L162

0 1
45
.11 3

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1938

HE LIBRARY O
UNIVERSITY OF ILLIN

THE LIBRARY OF THE
JUL 17 1939
UNIVERSITY OF ILLINOIS

REPORT SERIES
FIELD MUSEUM OF NATURAL HISTORY
VOLUME XI, NUMBER 3
JANUARY, 1939

PUBLICATION 443

THE LATE MRS. MARTIN A. (CARRIE) RYERSON

A Benefactor of the Museum, whose generous bequest included large sums of money and notable material for addition to the collections

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1938

THE LIBRARY OF THE
JUL 17 1939
UNIVERSITY OF ILLINOIS

REPORT SERIES
FIELD MUSEUM OF NATURAL HISTORY
VOLUME XI, NUMBER 3
JANUARY, 1939

PUBLICATION 443

PRINTED IN THE UNITED STATES OF AMERICA
BY FIELD MUSEUM PRESS

F45
v.11 3

BEQUESTS

Bequests to Field Museum of Natural History may be made in securities, money, books or collections. They may, if desired, take the form of a memorial to a person or cause, to be named by the giver. For those desirous of making bequests to the Museum, the following form is suggested:

FORM OF BEQUEST

I do hereby give and bequeath to Field Museum of Natural History of the City of Chicago, State of Illinois,_____

_____

_____

_____

_____

Contributions made within the taxable year to Field Museum of Natural History to an amount not in excess of 15 per cent of the taxpayer's net income are allowable as deductions in computing net income for federal income tax purposes.

Endowments may be made to the Museum with the provision that an annuity be paid to the patron during his or her lifetime. These annuities are guaranteed against fluctuation in amount and may reduce federal income taxes.

CONTENTS

PAGE

List of Plates 311

Officers, Trustees and Committees, 1938 313

Former Members of the Board of Trustees 314

Former Officers 315

List of Staff 316

Obituary—William J. Chalmers. 319

Report of the Director 321

- Department of Anthropology 354
- Department of Botany 364
- Department of Geology 378
- Department of Zoology 386
- N. W. Harris Public School Extension 399
- James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures 402
- Lectures for Adults 407
- Layman Lecture Tours 408
- Library. 409
- Publications and Printing. 413
- Photography and Illustration 416
- Public Relations. 417
- Membership 420
- Comparative Attendance Statistics and Door Receipts . . 422
- Comparative Financial Statements 423
- List of Accessions 424
- Articles of Incorporation 439
- Amended By-Laws. 441

List of Members 446

- Benefactors 446
- Honorary Members 446

List of Members—*Continued*

PAGE

Patrons 446
Corresponding Members 447
Contributors 447
Corporate Members 448
Life Members 448
Non-Resident Life Members 450
Associate Members 451
Non-Resident Associate Members 465
Sustaining Members 465
Annual Members 465

LIST OF PLATES

		FACING PAGE
XXV.	Mrs. Martin A. (Carrie) Ryerson	305
XXVI.	Excavation in Colorado	320
XXVII.	Chinese Pottery Jar	354
XXVIII.	Diorama Showing Alpine Vegetation	366
XXIX.	Merchants of St. Malo at Yemen (*a mural painting*)	372
XXX.	The Benld Meteorite	380
XXXI.	A New Species of Crocodilian	388
XXXII.	European Stork	396
XXXIII.	Undersea Group of Narwhal	400
XXXIV.	Steel Cases for Zoological Specimens	404
XXXV.	The Book Shop of the Museum	412
XXXVI.	A Recent Addition to the Portable Exhibits Loaned to the Schools of Chicago by the N. W. Harris Public School Extension	416

OFFICERS, TRUSTEES AND COMMITTEES, 1938

President
STANLEY FIELD

First Vice-President
ALBERT A. SPRAGUE

Second Vice-President
JAMES SIMPSON

Third Vice-President
ALBERT W. HARRIS

Secretary
CLIFFORD C. GREGG

Treasurer and Assistant Secretary
SOLOMON A. SMITH

BOARD OF TRUSTEES

SEWELL L. AVERY
LEOPOLD E. BLOCK
JOHN BORDEN*
WILLIAM J. CHALMERS‡
ALBERT B. DICK, JR.
JOSEPH N. FIELD
MARSHALL FIELD
STANLEY FIELD
ALBERT W. HARRIS
SAMUEL INSULL, JR.
CHARLES A. MCCULLOCH
WILLIAM H. MITCHELL
GEORGE A. RICHARDSON
THEODORE ROOSEVELT
FRED W. SARGENT
JAMES SIMPSON
SOLOMON A. SMITH
ALBERT A. SPRAGUE
SILAS H. STRAWN
JOHN P. WILSON

COMMITTEES

Executive.—Stanley Field, Albert W. Harris, William J. Chalmers,‡ James Simpson, Albert A. Sprague, Marshall Field, Silas H. Strawn, John P. Wilson.

Finance.—Albert W. Harris, Solomon A. Smith, James Simpson, John P. Wilson, Albert B. Dick, Jr.

Building.—William J. Chalmers,‡ Samuel Insull, Jr., William H. Mitchell, Leopold E. Block, Charles A. McCulloch.

Auditing.—James Simpson, Fred W. Sargent, George A. Richardson.

Pension.—Albert A. Sprague, Sewell L. Avery, Solomon A. Smith.

* RESIGNED, 1938
‡ DECEASED, 1938

FORMER MEMBERS OF THE BOARD OF TRUSTEES

George E. Adams*	1893–1917
Owen F. Aldis*	1893–1898
Allison V. Armour	1893–1894
Edward E. Ayer*	1893–1927
John C. Black*	1893–1894
M. C. Bullock*	1893–1894
Daniel H. Burnham*	1893–1894
George R. Davis*	1893–1899
James W. Ellsworth*	1893–1894
Charles B. Farwell*	1893–1894
Frank W. Gunsaulus*	1893–1894, 1918–1921
Emil G. Hirsch*	1893–1894
Charles L. Hutchinson*	1893–1894
John A. Roche*	1893–1894
Martin A. Ryerson*	1893–1932
Edwin Walker*	1893–1910
Watson F. Blair*	1894–1928
William J. Chalmers*	1894–1938
Harlow N. Higinbotham*	1894–1919
Huntington W. Jackson*	1894–1900
Arthur B. Jones*	1894–1927
George Manierre*	1894–1924
Norman B. Ream*	1894–1910
Norman Williams*	1894–1899
Cyrus H. McCormick*	1894–1936
Marshall Field, Jr.*	1899–1905
Frederick J. V. Skiff*	1902–1921
George F. Porter*	1907–1916
Richard T. Crane, Jr.*	1908–1912, 1921–1931
John Barton Payne*	1910–1911
Chauncey Keep*	1915–1929
Henry Field*	1916–1917
William Wrigley, Jr.*	1919–1931
John Borden	1920–1938
Harry E. Byram	1921–1928
Ernest R. Graham*	1921–1936
D. C. Davies*	1922–1928
Charles H. Markham*	1924–1930
Frederick H. Rawson*	1927–1935
Stephen C. Simms*	1928–1937
William V. Kelley*	1929–1932
Leslie Wheeler*	1934–1937

*Deceased

FORMER OFFICERS

Presidents

Edward E. Ayer*	1894–1898
Harlow N. Higinbotham*	1898–1908

First Vice-Presidents

Martin A. Ryerson*	1894–1932

Second Vice-Presidents

Norman B. Ream*	1894–1902
Marshall Field, Jr.*	1902–1905
Stanley Field	1906–1908
Watson F. Blair*	1909–1928
Albert A. Sprague	1929–1932

Third Vice-Presidents

Albert A. Sprague	1921–1928
James Simpson	1929–1932

Secretaries

Ralph Metcalf	1894
George Manierre*	1894–1907
Frederick J. V. Skiff*	1907–1921
D. C. Davies*	1921–1928
Stephen C. Simms*	1928–1937

Treasurers

Byron L. Smith*	1894–1914

Directors

Frederick J. V. Skiff*	1893–1921
D. C. Davies*	1921–1928
Stephen C. Simms*	1928–1937

* Deceased

LIST OF STAFF

DIRECTOR

CLIFFORD C. GREGG

DEPARTMENT OF ANTHROPOLOGY

PAUL S. MARTIN, *Chief Curator*
HENRY FIELD, *Curator, Physical Anthropology*
ALBERT B. LEWIS, *Curator, Melanesian Ethnology*
WILFRID D. HAMBLY, *Curator, African Ethnology*
C. MARTIN WILBUR, *Curator, Chinese Archaeology and Ethnology*
EDNA HORN MANDEL, *Associate, Chinese Collections*
RICHARD A. MARTIN, *Curator, Near Eastern Archaeology*
A. L. KROEBER, *Research Associate, American Archaeology*
MARJORIE KELLY, *Associate, Southwestern Archaeology*
JOHN RINALDO, *Associate, Southwestern Archaeology*
T. GEORGE ALLEN, *Research Associate, Egyptian Archaeology*
TOKUMATSU ITO, *Ceramic Restorer*

DEPARTMENT OF BOTANY

B. E. DAHLGREN, *Chief Curator*
PAUL C. STANDLEY, *Curator, Herbarium*
J. FRANCIS MACBRIDE, *Associate Curator, Herbarium*
JULIAN A. STEYERMARK, *Assistant Curator, Herbarium*
FRANCIS DROUET, *Curator, Cryptogamic Botany*
LLEWELYN WILLIAMS, *Curator, Economic Botany*
SAMUEL J. RECORD, *Research Associate, Wood Technology*
A. C. NOÉ, *Research Associate, Paleobotany*
E. E. SHERFF, *Research Associate, Systematic Botany*
EMIL SELLA, *Assistant, Laboratory*
MILTON COPULOS, *Assistant, Laboratory*

DEPARTMENT OF GEOLOGY

HENRY W. NICHOLS, *Chief Curator*
ELMER S. RIGGS, *Curator, Paleontology*
BRYAN PATTERSON, *Assistant Curator, Paleontology*
PHIL C. ORR, *Assistant, Paleontology**
JAMES H. QUINN, *Assistant, Paleontology*
PAUL O. MCGREW, *Assistant, Paleontology*
SHARAT K. ROY, *Curator, Geology*

DEPARTMENT OF ZOOLOGY

WILFRED H. OSGOOD, *Chief Curator*
COLIN CAMPBELL SANBORN, *Curator, Mammals*
RUDYERD BOULTON, *Curator, Birds*
C. E. HELLMAYR, *Associate Curator, Birds*
EMMET R. BLAKE, *Assistant Curator, Birds*
H. B. CONOVER, *Research Associate, Birds*
ELLEN T. SMITH, *Associate, Birds*
R. MAGOON BARNES, *Curator, Birds' Eggs*
KARL P. SCHMIDT, *Curator, Amphibians and Reptiles*
ALFRED C. WEED, *Curator, Fishes*
WILLIAM J. GERHARD, *Curator, Insects*
EMIL LILJEBLAD, *Assistant Curator, Insects*
FRITZ HAAS, *Curator, Lower Invertebrates*
CLAIRE NEMEC, *Associate, Lower Invertebrates*
EDMOND N. GUERET, *Curator, Anatomy and Osteology*
D. DWIGHT DAVIS, *Assistant Curator, Anatomy and Osteology*

*RESIGNED, 1938

TAXIDERMISTS

JULIUS FRIESSER — C. J. ALBRECHT
L. L. PRAY — LEON L. WALTERS
W. E. EIGSTI — JOHN W. MOYER

ASSISTANT TAXIDERMISTS

EDGAR G. LAYBOURNE — FRANK C. WONDER

FRANK H. LETL, *Preparator of Accessories*

DEPARTMENT OF THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

JOHN R. MILLAR, *Curator*
A. B. WOLCOTT, *Assistant Curator*

THE LIBRARY

EMILY M. WILCOXSON, *Librarian*
MARY W. BAKER, *Associate Librarian*

REGISTRAR

HENRY F. DITZEL

AUDITOR

BENJAMIN BRIDGE

BOOKKEEPER

A. L. STEBBINS

RECORDER—IN CHARGE OF PUBLICATION DISTRIBUTION

ELSIE H. THOMAS

PURCHASING AGENT

J. L. JONES*
ROBERT E. BRUCE

THE BOOK SHOP

NOBLE STEPHENS, *Manager*

THE JAMES NELSON AND ANNA LOUISE RAYMOND FOUNDATION FOR PUBLIC SCHOOL AND CHILDREN'S LECTURES

MARGARET M. CORNELL, *Chief*

MIRIAM WOOD — LEOTA G. THOMAS
VELMA D. WHIPPLE* — ELIZABETH HAMBLETON
MARIE B. PABST — LOREN P. WOODS

PUBLIC RELATIONS COUNSEL

H. B. HARTE

PAUL G. DALLWIG, *the Layman Lecturer*

DIVISION OF MEMBERSHIPS

PEARLE BILINSKE, *in charge*

DIVISION OF PRINTING

DEWEY S. DILL, *in charge*

EDITORS AND PROOFREADERS

LILLIAN A. ROSS — DAVID GUSTAFSON

DIVISIONS OF PHOTOGRAPHY AND ILLUSTRATION

C. H. CARPENTER, *Photographer* — CARL F. GRONEMANN, *Illustrator*
A. A. MILLER, *Collotyper*
CLARENCE B. MITCHELL, *Research Associate, Photography*

STAFF ARTISTS

CHARLES A. CORWIN‡ — ARTHUR G. RUECKERT

SUPERINTENDENT OF MAINTENANCE

JOHN E. GLYNN‡

CHIEF ENGINEER

W. H. CORNING
WILLIAM E. LAKE, *Assistant Engineer*

* RESIGNED, 1938
‡ DECEASED, 1938

WILLIAM J. CHALMERS

July 10, 1852—December 10, 1938
Elected a Trustee January 22, 1894

With a sense of acute loss, the Trustees of Field Museum of Natural History sorrowfully record the death of their colleague, William J. Chalmers.

Mr. Chalmers, who died on December 10, 1938, in his eighty-seventh year, had served ably on the Board of Trustees since 1894, shortly after the founding of the Museum. His counsel and guidance greatly stimulated the progress of the Museum over the years. Especially valuable was his advice during the long period of planning the edifice which now houses the institution. He was chosen as a member of the Building Committee concurrently with his election as a Trustee, and for many years, until the time of his death, remained as chairman of that important committee, whose work assured this institution of a permanent and monumental structure providing ideal accommodations for scientific exhibits, and suitable quarters for the research activities of the scientific staff. After the building's completion, Mr. Chalmers and his Committee continued to function as advisors on maintenance and improvements.

Mr. Chalmers was a member also of the Executive Committee of the Trustees, in which capacity his voice was heard in all the most important decisions concerned with the welfare of the Museum as a whole.

In recognition of eminent service to Science, Mr. Chalmers was elected an Honorary Member of the Museum, and his name was placed high on the roll of the Museum's Contributors because of generous gifts he made to the institution. He was, further, a Corporate Member and a Life Member.

In the Museum's Department of Geology, Mr. Chalmers founded a noteworthy series of exhibits which his fellow Trustees designated as the William J. Chalmers Crystal Collection. By means of the carefully selected mineral specimens of unusual excellence which he contributed, this collection illustrates the most important phases of crystallography, and provides material of immense educational value which has been used to great advantage by countless students and teachers. Year after year, Mr. Chalmers made additional gifts to expand and improve this collection. He made outstanding

contributions also to the general mineral collection, the gem collection, and the vertebrate fossil collection.

Mr. Chalmers, a native of Chicago, rose to a prominent place in the city's business life, but in recent years had retired from active direction of the enterprises with which he was associated. Always keenly interested in civic affairs, he was a director of the World's Columbian Exposition of 1893, and a member of the Chicago school board under Mayor Washburne. He also served on the track elevation commission which made possible the elevation of the Illinois Central Railroad in 1892. During the World War, he directed campaigns to obtain relief funds for Belgian children, and contributed lavishly to this cause from his own funds. The Belgian Government recognized his humanitarian efforts with one of its highest decorations. He was equally active in promoting children's welfare and other charities at home, and he was quietly and anonymously the author of many private benefactions.

Until recent years, when ill health made it impossible for Mr. Chalmers to continue active participation in the deliberations of the Board of Trustees, his presence at meetings was the source of many ideas important to the development of this institution. He was greatly admired by his fellow Trustees, who, apart from the business of the Board, enjoyed deeply association with a man of such great personal charm.

Therefore, be it resolved that this expression of our esteem for Mr. Chalmers, and our grief at his passing, be permanently preserved on the records of the Board;

And be it further resolved that our deep sympathy be conveyed to the members of his family in their bereavement, and that a copy of this resolution be sent to his widow.

CLIFFORD C. GREGG, Secretary — STANLEY FIELD, President

December 19, 1938

EXCAVATION IN COLORADO

Portion of a large Basket Maker village, dated A.D. 760

Uncovered by the Field Museum Archaeological Expedition to Southwestern Colorado, 1938

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

ANNUAL REPORT OF THE DIRECTOR

1938

To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1938.

During the course of the year 1,391,580 visitors passed through the doors of Field Museum, this splendid total representing an increase of almost 100,000 over the previous year's attendance. Despite this gain, receipts from paid admissions fell off $780, the percentage of paying visitors being only 6.6 per cent of the total as compared with 7.3 per cent during the preceding year. These figures show that financial support of the institution is not in direct proportion to its usefulness, but is affected directly and immediately by general business conditions and public confidence.

It should be noted that the educational influence of the Museum is not confined to the number of visitors actually received in the building. Extra-mural activities, such as those conducted among school children by the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures, and the N. W. Harris Public School Extension, reached hundreds of thousands of others, bringing the total number of persons directly within the sphere of the Museum's influence to more than 2,000,000. These additional contacts include 182,608 children reached through lecturers sent into the schools by the Raymond Foundation, and approximately 500,000 children repeatedly reached by the 1,200 traveling exhibits circulated in the schools by the Harris Extension. Indirectly, through newspaper publicity, *Field Museum News*, Museum publications and leaflets, radio programs, motion picture newsreels, and other such media, additional numbers, of incalculable but obviously immense proportions, are made aware of Museum activities, and are brought scientific information.

Included in the Museum attendance figures are the audiences, aggregating more than 50,000 persons, attracted by the spring and autumn courses of free illustrated lectures for adults, and the Raymond Foundation series (spring, summer and autumn) of free motion pictures for children, which were presented in the James Simpson Theatre. Likewise included are more than 48,000 children and adults who were conducted on guide-lecture tours of the exhibits.

The attendance figures were increased also by persons who participated in the lecture tours conducted by Mr. Paul G. Dallwig, a Member of the Museum who joined the staff in 1937 as a volunteer worker with the title of The Layman Lecturer. Mr. Dallwig conducts parties of Museum visitors on special lecture tours on Sunday afternoons during eight months in the winter, spring, and autumn. In 1938 this notable service was extended to thirty-four such groups aggregating 2,741 persons. There were several hundred more applicants than could be accommodated, as parties were necessarily limited to a size practical for handling. A full report on Mr. Dallwig's unique contribution to Museum activities will be found elsewhere in this book.

It is worthy of note that during the months of March, April, October, and November, with the Raymond Foundation's Saturday motion picture programs for children, the Saturday afternoon lectures for adults in the James Simpson Theatre, the Sunday afternoon lecture tours conducted by Mr. Dallwig, and the guide-lecture tours conducted on week-days by the Museum staff, there were special events for Museum visitors every day. Even during the other eight months, there were some special activities of this sort being conducted almost daily.

The Museum continued to exert every effort to provide educational service requested by groups, either of children or adults. Once again, large parties of farm boys and girls from forty-four states, and Canada and Hawaii, were brought to the Museum during the International Live Stock Exposition held at the Union Stock Yards in Chicago during December. There were 1,585 in these groups—626 girls and 959 boys—several hundred more than in the similar groups of the previous year. They came under the auspices of the National Four-H Club Congress. The entire staff of the James Nelson and Anna Louise Raymond Foundation was assigned to conducting them on guide-lecture tours of Museum exhibits. In addition to these groups, the Museum received hundreds of individual visitors, both adults and youths, who were in Chicago because of the live stock show.

In 1938, as in 1937, the Raymond Foundation co-operated with the Public School Broadcasting Council in presenting programs supplementing science features on the radio. Special mimeographed material was prepared for use by boys and girls sent to the Museum as representatives of their schools, and special exhibits and lectures were arranged for them.

A program of expansion, including several educational innovations, was undertaken by the N. W. Harris Public School Extension of the Museum. While the new activities are still in the experimental stage, enough evidence was obtained to indicate that the new services would fulfill real needs in the schools. The Harris Extension received many letters from school authorities, teachers, principals, and the children themselves lauding the work already in full operation as developed in the twenty-five years since this Department was inaugurated.

The Library of the Museum continued to give valuable service not only to members of the Museum staff and scientists in general, but to students in various educational institutions in Chicago and vicinity, and to the public in general. The fact that the Museum Library is available to the public is gradually becoming better known, with a resultant increase in its use. There were 2,510 readers from outside accommodated during 1938, or about one-third more than in the preceding year. The books and pamphlets on the shelves were increased to a total of approximately 114,000 volumes.

Teachers, students, and others engaged in research work of various types, again found much valuable assistance in the reference material collections maintained for this purpose in each of the scientific Departments of the Museum. Members of the staff co-operated in every way with these researchers to assure their obtaining the full benefits of the study collections.

Due to an ever-increasing demand on the part of the public for authoritative books on the sciences within the scope of the Museum, a Field Museum Book Shop was established. Each book offered for sale is first approved by the member of the scientific staff best qualified to deal with its particular subject matter. The approved list at the close of the year included 180 titles. In order that the Book Shop might offer maximum service to the general public, a special room was built for it at the north entrance of the building, where it is easily accessible to visitors. An index to the quick acceptance of this new service is found in the fact that the volume of business done was considerably in excess of expectations.

The Museum suffered a severe loss in the death, on December 10, of Mr. William J. Chalmers, who had ably served as a member of the Board of Trustees since 1894, shortly after the founding of the institution. Mr. Chalmers was Chairman of the Building Committee, and a member of the Executive Committee of the Trustees. He was also an Honorary Member, a Corporate Member, and a Life

Member of the Museum, and his generous gifts to the institution placed his name high on the roll of the Museum's Contributors (a membership classification including those whose gifts in money or materials reach a value between $1,000 and $100,000). A resolution of the Trustees, in tribute to Mr. Chalmers, will be found in pages of this book preceding the Report proper.

Also noted with regret is the death, on February 25, of Mr. Henry Jay Patten, who was an advisor, supporter, and friend of institutions and researchers working in the field of Near Eastern archaeology. A Life Member of Field Museum, he contributed some of the Coptic textiles in the Egyptian hall, as well as cuneiform tablets from ancient Mesopotamia (now Iraq). He was the donor also of funds to enable the Field Museum–Oxford University Joint Expedition to Mesopotamia to continue excavations during 1928 at the site of Jemdet Nasr, near Kish, and to cover the expenses involved in publishing the Kish Sasanian sculptures in a book entitled *A Survey of Persian Art.* In recognition of his generous gifts, the Trustees elected Mr. Patten some years ago to the membership classification designated as Contributors.

The death, on December 4, of Mr. Frederick Blaschke, noted sculptor of Cold Spring-on-Hudson, New York, came as a profound shock to members of the scientific and administrative staff of Field Museum, with whom he had been associated for a number of years. Mr. Blaschke was the creator of the restorations of various types of prehistoric man in the Hall of the Stone Age of the Old World, and of extinct mammals in Ernest R. Graham Hall, which is devoted to the collections of fossil animals and plants. This work ranked among his most important accomplishments, and won him great acclaim for its excellence. A gift to the Museum, made a few years ago by Mr. Blaschke in the name of his infant son, Stanley Field Blaschke, resulted in the inclusion of the latter on the list of the institution's Contributors.

In 1938 four names were added to the list of Contributors. They are: Mr. Sewell L. Avery, of Chicago; Mrs. Leslie Wheeler, of Lake Forest, Illinois; and Mrs. Edith Almy Adams, and Miss Clara A. Avery, both of Chicago (Mrs. Adams and Miss Avery were posthumously elected). Mr. Avery furnished funds during 1938 for the carrying on of four important expeditions: a zoological expedition to British Guiana, botanical expeditions to the Bay of Fundy and to Guatemala, and a geological expedition to western and eastern regions of the United States. Mrs. Wheeler has gener-

ously contributed sums for the support and expansion of the Museum's collection of birds of prey which was built up by her late husband, who had been a Trustee of the institution, and Research Associate in Ornithology on the Museum staff. Mrs. Adams left a bequest to the Museum amounting to more than $30,000 in value. Miss Avery also generously bequeathed funds to the Museum.

Mr. Charles A. McCulloch, of Chicago, was elected a Life Member of the Museum in 1938. He is a member of the Board of Trustees.

A list of Members in all classes will be found beginning on page 446 of this Report. The total number of memberships on December 31 was 4,122 as compared with 4,266 on the same date in 1937. It is hoped that the small loss may be more than recovered during 1939. Appreciation is due to all those who have continued their support of the Museum by retaining their memberships.

As a memorial to the late Richard T. Crane, Jr., Benefactor of the Museum, and former member of the Board of Trustees, a resolution to name Hall 16 (the Hall of American Mammal Habitat Groups) "Richard T. Crane Jr. Hall" was adopted by the Trustees at their Annual Meeting held January 17. This action was taken in recognition of the deep interest Mr. Crane manifested in the Museum's work for more than twenty-five years, the many important services he rendered the institution, and his generous contributions.

At the same meeting, the Trustees re-elected for 1938 all Officers of the Museum who had served in 1937. Mr. Stanley Field thus began his thirtieth year as President, having held that office continuously since 1909. The other re-elected Officers are: Colonel Albert A. Sprague, First Vice-President; Mr. James Simpson, Second Vice-President; Mr. Albert W. Harris, Third Vice-President; Mr. Clifford C. Gregg, Director and Secretary; and Mr. Solomon A. Smith, Treasurer and Assistant Secretary. Also, at this meeting, the resignation from the Board of Trustees of Mr. John Borden, for personal reasons, was accepted with regret.

At a meeting held May 23, the Trustees elected Colonel Theodore Roosevelt, of New York, to the Board. Colonel Roosevelt's interest in and association with the Museum dates back to 1925 when, with Mr. Kermit Roosevelt, he led the James Simpson–Roosevelts Asiatic Expedition of Field Museum. In 1928 Colonel Roosevelt and his brother again collected for the Museum, as co-leaders of the William V. Kelley–Roosevelts Expedition to Eastern Asia. Both of these

expeditions obtained magnificent collections of mammals, many of which are now exhibited in habitat groups and also as single mounts. Outstanding among these are the groups of Marco Polo's sheep (*Ovis poli*), Asiatic ibex, and giant panda.

At a meeting of the Board of Trustees, held November 21, an amendment was made to Section 2 of Article VIII of the By-Laws, increasing the number of members of the Finance Committee from five to six. Certain other minor amendments were made in the wording of Sections 9 and 10 of Article I.

Many new exhibits were installed in all Departments of the Museum during 1938, and a number of exhibits already on display were reinstalled and improved. In each of the departmental reports in this book will be found details concerning the additions and reinstallations; consequently, only brief reference will be made here to a few of the more important ones.

In the Department of Anthropology the most noteworthy new exhibits are those in Hall L. This hall, installation of which was completed during the year, is devoted to Asiatic ethnology exclusive of China and Tibet. It contains many objects no longer to be found in their places of origin, due to the changes wrought by the influence of different civilizations. Included is material representing the arts, industries, warfare, and social and religious life of India, Burma, Ceylon, Siam, Korea, Siberia, and the island of Yezo (Hokkaido) in northern Japan where dwell the last remnants of that mysterious race known as the Ainu. In George T. and Frances Gaylord Smith Hall (Hall 24) notable additions were made to the exhibits of Chinese ceramics as a result of material received in the bequest of Mrs. George T. Smith, from whose private collections the Museum's series of jades in Hall 30 had been so greatly augmented in 1937.

To the Department of Botany was added the largest and most striking exhibit thus far attempted in that Department—a habitat group of Rocky Mountain alpine plants installed in a built-in case at the north end of the Hall of Plant Life (Hall 29). This diorama shows, against a background representing the snow-covered peaks of the Medicine Bow range in Wyoming, the curious profusion of flowers found growing under arctic-alpine conditions. Other new exhibits in this Department are: a reproduction of the bee-swarm orchid as it grows high on the trunks of trees in Central and South America, installed in the Hall of Plant Life; and a reproduction of

the fruit and fruiting stem of a feather-leaved nipa palm which grows in the Oriental tropics, added to Hall 25.

Additions to Clarence Buckingham Hall (Hall 35) in the Department of Geology include important specimens illustrating metamorphism of the earth's surface rocks, collected by expeditions conducted during the past several years by Mr. Sharat K. Roy, Curator of Geology; and fossil imprints of raindrops in sedimentary rocks, estimated to be 250,000,000 years old, collected by Mr. Roy while conducting the Sewell Avery Geological Expedition of 1938. In Hall 34 there were placed on view specimens of tectites—nodules and fragments of natural glass which constitute one of the world's great geological mysteries. In the Division of Paleontology of this Department, several noteworthy additions were made to the exhibits in Ernest R. Graham Hall (Hall 38). Among these is an almost complete skeleton of a huge prehistoric animal known as the mountain ground sloth of South America (*Pseudomegatherium lundi*). This is the first skeleton of its kind to be erected in any museum. The specimen was discovered and excavated some years ago by Captain Robert M. Thorne of the Second Marshall Field Paleontological Expedition to Argentina and Bolivia. Also outstanding in interest is a fossil skeleton of *Moropus*, a strange mammal related to the horse and the extinct Titanothere, but having claws on the feet in place of hoofs. It was found in Nebraska where it had been preserved in a sandstone formation for about 20,000,000 years. A temporary exhibit was made also of many interesting and important fossil mammal specimens collected in 1937 by the Field Museum Paleontological Expedition to Colorado under the leadership of Assistant Curator Bryan Patterson.

In the Department of Zoology two new habitat groups were added to the Hall of Marine Mammals (Hall N). One is a group of Weddell's seals, specimens for which were collected by the Second Antarctic Expedition of Rear-Admiral Richard E. Byrd (1934–35). The other group in this hall is an undersea scene showing narwhals. These are a small species of whale, of which the males are armed with a long rapier-like tusk. The original specimens were collected by an expedition off the coast of Greenland under the leadership of Captain Robert A. Bartlett, noted Arctic explorer. In Hall 20, devoted to habitat groups of birds, four new groups were completed, and an old group was entirely reinstalled and improved. One of the new groups is that of the white stork of Europe and Asia, shown as it nests on the roof of a house in a Polish village.

The specimens of the birds, and also the nest and rooftop, were presented to the Museum by the Polish-American Chamber of Commerce in Warsaw. The three other new bird groups are composed of specimens collected by the Leon Mandel–Field Museum Zoological Expedition to Guatemala (1934). One shows the brilliantly colored and plumed quetzal, national bird of Guatemala; another, the giant oriole or oropendula with its strange hanging nests; and the third, the toucans and associated birds of the tropical rain-forest of eastern Guatemala. The reinstalled group shows many of the myriad kinds of oceanic birds which flock to Laysan Island (of the Hawaiian archipelago) to breed. Among single mounts prepared during the year, the one that attracted the most interest was that of Su-Lin, famous giant panda which died at the Brookfield Zoological Park of the Chicago Zoological Society, in April. The specimen was presented to the Museum by the Zoo, and is now on exhibition in Stanley Field Hall. The body, except for the removed skin, was turned over to Mr. D. Dwight Davis, Assistant Curator of Anatomy and Osteology, for the first complete detailed anatomical study ever made of this species of animal. In Hall 15, devoted to the systematic collection of mammals, there was installed an exhibit showing the closest relatives of the giant panda, and Su-Lin will later be transferred to this case. Also installed in Hall 15 was an exhibit showing seven species of baboon. An important addition to the systematic bird collection in Hall 21 is a life-size model of the extinct dodo, of which no complete specimen, or even skeleton, remains in existence. An interesting new exhibit in Hall 19 (Osteology) shows the twenty component bones of a human skull compared with those of a codfish skull, numbering sixty-eight. This exhibit illustrates the general tendency toward structural simplification of the skull as evolution progresses.

The Museum made loans of some of its material for various special exhibits in other cities. To the Metropolitan Museum of Art, New York, a number of noteworthy pieces were lent for an exhibition of representative Chinese bronzes in American collections, held October 13 to November 28. A collection of ethnological objects from Borneo, Java, New Guinea, Sumatra, Cook Islands, Celebes, and other South Pacific islands, was dispatched to the Golden Gate International Exposition at San Francisco for display during 1939 in the exposition's Department of Fine Arts. An Egyptian mummy was lent to the General Electric X-ray Corporation, Chicago, for use in an exhibit at the 1939 New York World's

Fair. This exhibit will demonstrate the use of the fluoroscope in scientific research. An installation has been prepared whereby exposition visitors will be enabled alternately to view the mummy's exterior and then, through the fluoroscope, its interior. It will be a central feature of the X-ray Corporation's exhibit. Field Museum was invited to participate because of the pioneer work conducted by this institution, over a period of several years beginning in 1925, in developing, and successfully applying, a technique for x-ray photography on mummies and other types of specimens not previously studied in this manner. As full credit will be given Field Museum in the exhibits at both the San Francisco and New York expositions, many persons, who later may be visitors to Chicago, will thus become acquainted with phases of the work of this institution.

In view of the fact that in 1938, as in other recent years since depression has severely curtailed its budgets, it has been impossible for the Museum to make sizable appropriations for expeditions from its own funds, the institution was singularly fortunate in being enabled to carry out an important expeditionary program with contributions from public-spirited Chicagoans. Mr. Sewell L. Avery, a Trustee, sponsored four; President Stanley Field made funds available for one, and Dr. Wilfred H. Osgood, Chief Curator of the Department of Zoology, personally financed and conducted an expedition. Following is a summary of the year's expeditions, and other field work:

The Sewell Avery Zoological Expedition to British Guiana, under the leadership of Mr. Emmet R. Blake, Assistant Curator of Birds, conducted operations for several months. Despite a boat accident which caused the loss of many valuable specimens, this expedition yielded several hundred birds and other animals for addition to the study collections of the Department of Zoology.

The Sewell Avery Geological Expedition, under the leadership of Mr. Sharat K. Roy, Curator of Geology, collected rocks illustrating the effects of various dynamic agents, and others showing features of terrestrial structure. Semi-precious gem stones were also obtained. Collecting was carried on in both western and eastern states. The results, combined with collections of previous years, give Field Museum what is probably the most comprehensive collection in America illustrating phenomena embraced in the study of physical geology.

The Sewell Avery Botanical Expedition to Nova Scotia, led by Mr. John R. Millar, Curator of the N. W. Harris Public School

Extension (formerly a member of the staff of the Department of Botany), obtained a comprehensive collection of specimens representing the inter-tidal vegetation of the Bay of Fundy, for use in a proposed exhibit of marine plant life.

The Sewell Avery Botanical Expedition to Guatemala, under the leadership of Mr. Paul C. Standley, Curator of the Herbarium, left Chicago in November, and at the end of the year was scheduled to remain in the field for several months of 1939. Plans call for the collection of a wide variety of plants representing the diversified flora of Guatemala. At last reports several thousand specimens had already been collected.

Through the generosity of President Stanley Field, funds were made available by means of which it was possible to resume the work of the Field Museum Archaeological Expeditions to the Southwest, conducted in Colorado during seven previous years by Dr. Paul S. Martin, Chief Curator of the Department of Anthropology, and associated archaeologists. After one of his most successful seasons, Dr. Martin reports that the 1938 activities resulted in the establishment of a complete and final sequence of the history of the earliest known inhabitants of southwestern Colorado—the prehistoric Basket Maker Indians who occupied the region from about A.D. 600 to 1200. Several important new sites were excavated, and large and important collections of pottery and other artifacts were obtained. A newsreel of the "dig" was made by Paramount News.

Dr. Osgood's expedition was concerned with research into certain interesting biological problems presented by the fauna of the white Tularosa sands and the black lava beds in desert regions of New Mexico. He was accompanied by Dr. Frank W. Gorham, of Los Angeles, and Mr. Walter F. Nichols, of Pasadena, California. In addition to collecting desert mammals, Dr. Osgood obtained important zoological specimens in the Mogollon Mountains of New Mexico, and in various parts of California and Colorado.

Varieties of cryptocrystalline quartz for the collections of the Department of Geology were obtained by an expedition to Oregon, Washington, and Wyoming, conducted under a special arrangement by Dr. Albert J. Walcott, of Chicago.

Through the co-operation of Messrs. James Leavell and Carl Birdsall, of Chicago, Mr. Rudyerd Boulton, Curator of Birds, was enabled to make a short field trip to the Gulf Coast area of Mississippi, during the course of which a number of specimens of birds were collected.

Mr. J. Francis Macbride, Associate Curator of the Herbarium, continued the project, upon which he has been engaged since 1929, of obtaining photographs of type specimens of plants in herbaria of various European countries. To date the Museum has received from him more than 34,000 negatives. Prints from these are made available, at cost, to botanists and institutions all over the world, and have proved to be of immense value in connection with various scientific problems.

Mr. Bryan Patterson, Assistant Curator of Paleontology, spent several months in research in Europe, under a grant-in-aid awarded by the American Association of Museums from a fund provided by the Carnegie Corporation of New York. He also made a collection of several hundred insects for the Department of Zoology.

Dr. Julian A. Steyermark, Assistant Curator of the Herbarium, made several field trips in Missouri, and obtained several thousand botanical specimens for the Museum's Herbarium. Part of this work was done at his own expense, and part under a grant awarded him by the Academy of Sciences of St. Louis, through the research fund of the American Association for the Advancement of Science.

Mr. Colin Campbell Sanborn, Curator of Mammals, spent several months in Europe on a research project in the British Museum and other institutions, under a fellowship of the John Simon Guggenheim Memorial Foundation. Under this same fellowship he plans to make an expedition to Central America in 1939.

Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles, made a field trip to southwestern Arkansas to collect salamanders and other amphibians and reptiles. He was assisted by Mr. C. M. Barber, a former member of the Museum's staff.

Dr. B. E. Dahlgren, Chief Curator of the Department of Botany, made a journey at his own expense to the Amazon region of Brazil. There he collected material and photographs needed for an ecological group in preparation for the Hall of Plant Life—an aquatic scene showing the largest of all fresh-water plants, the Victoria regia.

Professor A. C. Noé, Research Associate in Paleobotany, collected fossil plants on a field trip in southern Illinois, and collected also in the Pennsylvanian field of Texas, and the Cretaceous and Tertiary in Mexico.

Mr. Llewelyn Williams, Curator of Economic Botany, was granted a two years' leave of absence to accept an appointment to engage in special work for the Ministry of Agriculture of Venezuela.

He is assisting Dr. Henry F. Pittier, the famous Swiss botanist (formerly connected with the United States Department of Agriculture), in a botanical survey and study of the various resources of Venezuela, and under a special arrangement is concurrently making botanical collections for Field Museum.

Grateful acknowledgment is herewith extended to all who made gifts of money, and of material for the scientific collections and the Library. Among those who contributed funds during the year are the following:

Mr. Albert W. Harris made a gift of $55,000 to restore the endowment of the N. W. Harris Public School Extension, which had suffered losses on certain securities held in its account.

From the estate of the late Mrs. Carrie Ryerson the Museum received $302,146.91 in cash, stocks, and bonds, realized from assets included in a bequest. The estate is still in process of administration.

Mrs. Diego Suarez, of New York, gave the sum of $25,000, to be used toward payment of general operating expenses of the Museum.

From Mr. Marshall Field the Museum received gifts totaling $24,145, of which $4,615 was for purchase of much-needed equipment in the scientific Departments. The rigid economies made necessary for a number of years by extremely limited budgets had naturally prevented the purchase of many items of modern scientific equipment. Recognizing that the best results of scientific effort could not be obtained under these conditions, Mr. Field made the special gift above indicated for the purpose of replacing certain obsolete scientific apparatus with the most modern and up-to-date models.

President Stanley Field contributed sums totaling $18,362.62. Included in this gift were rights to subscribe to a new issue of convertible debentures of the Commonwealth Edison Company, and funds for Museum expeditions, storage equipment, and the purchase of specimens.

Mrs. James Nelson Raymond contributed $6,000 toward the operating expenses of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures. This, with previous gifts, makes a total of more than $63,000 received from Mrs. Raymond to supplement the $500,000 endowment she provided in 1925 wherewith the Raymond Foundation was established.

From Mr. Wallace W. Lufkin a gift of $5,000 was received.

Mr. Sewell Avery provided funds of $4,500 to cover the expenses of four expeditions mentioned in preceding pages.

To increase the collection of birds of prey begun by her late husband, Leslie Wheeler, of Lake Forest, Illinois, a former Trustee of Field Museum, Mrs. Wheeler contributed $1,000 and has indicated her intention of continuing the Leslie Wheeler Fund for the purchase of bird specimens.

From the estate of the late Mrs. Edith Almy Adams the Museum received payment of a bequest amounting to $33,546.63.

A bequest of $1,000 was received from the estate of the late Miss Clara A. Avery.

Prior to his death in February, the Museum received from the late Henry J. Patten, of Chicago, a gift of $250. Other sums of varying amounts were received as contributions from Mrs. Hermon Dunlap Smith, of Lake Forest; Mr. Clarence B. Mitchell, of Lake Forest; the Jewish Welfare Fund, of Chicago, and the Emergency Committee for the Aid of Displaced German Scholars. The last two contributions in the foregoing list were for the specific purpose of enabling the Museum to add to its scientific staff, as Curator of Lower Invertebrates, Dr. Fritz Haas, noted biologist formerly on the staff of the Senckenberg Museum at Frankfort-on-the-Main, Germany. Dr. Haas was not available for employment when the budget for the year was prepared.

Indebtedness to the Northern Trust Company, of which a balance of $36,000 remained at the beginning of 1938, was paid during the year from available funds of the Museum.

From the Chicago Park District the Museum received sums aggregating $117,904.31, as its share, authorized by the state legislature, of collections made during 1938 under the tax levies for 1937 and preceding years.

Details of the many gifts of materials for the collections received by the Museum during the year will be found in the departmental sections of this Report, and in the complete List of Accessions beginning on page 424. For mention here, a few outstanding ones have been selected, as follows:

A specimen of mako shark, about eight feet long and weighing 274 pounds, was presented by Mr. Leon Mandel, of Chicago, who caught it during a cruise in Cuban waters aboard his yacht *Buccaneer*.

Two excellent specimens of ribbon seal, and four of bearded seal, collected in northern Alaska, were presented by Mr. Carl Dreutzer, of Chicago.

From *The Chicago Tribune*, through the good offices of its publisher, Colonel Robert R. McCormick, there was received as a

gift a large relief model, ten feet wide by fifteen feet long, of North America, for addition to the exhibits in the Department of Geology.

Colonel Warren R. Roberts, of Chicago, presented a beautiful mounted specimen of white marlin which he caught in the Gulf Stream off Miami, Florida.

The Department of Zoology of the University of Chicago presented a large collection of fishes taken in the Great Lakes and the upper Ohio and Mississippi Valleys.

Mr. Melvin A. Traylor, Jr., of Chicago, gave the Museum representative specimens of more than eighty species of birds which he collected in the Yucatan peninsula of Mexico. Subsequently he contributed also his services to the Museum as a volunteer worker, undertaking the classification and study of these birds in collaboration with Mr. Rudyerd Boulton, Curator of Birds.

Dr. Henry Field, Curator of Physical Anthropology, contributed a large sarcophagus, a carved marble bath, a marble basin and stand, and two marble capitals from ancient Rome.

Mr. Clarence B. Mitchell, Research Associate in Photography, contributed photographic equipment, and provided the expensive color plates necessary for the printing of colored post cards of the Museum's giant panda, klipspringer, and quetzal groups. The quetzal picture was used also in publication of an attractive calendar for 1939, and for a four-color illustration in the December issue of *Field Museum News*.

A collection of Navaho textiles was presented by Mr. Homer E. Sargent, of Pasadena, California, augmenting his previous gifts of material of this nature.

A fine mounted specimen of Atlantic broadbill swordfish was presented by Mr. Michael Lerner, New York sportsman. It was caught off the Nova Scotia coast by Mrs. Lerner.

Mrs. Richard T. Crane, of Chicago, gave the Museum a portrait of the late Harlow N. Higinbotham, the Museum's second President, showing him as he appeared during the years he occupied that office.

Colonel Theodore Roosevelt, of New York, presented two beautiful illuminated religious manuscripts from Tibet, written on parchment in the beautiful Tibetan script, and bound in elaborate wooden covers.

Large numbers of valuable zoological specimens were contributed frequently, as in past years, by the Lincoln Park Zoo, the Chicago Zoological Society, the John G. Shedd Aquarium, and the General Biological Supply House.

An acquisition of unusual interest and importance, obtained by purchase, was that of the Benld meteorite which fell in the town of that name in southern Illinois on September 29, 1938, together with a section of a garage roof, automobile top, and seat cushion which it penetrated, and the automobile muffler which it dented and from which it bounced back into the cushion. This meteorite is outstanding on several grounds: it is only the second meteorite ever to be recorded as falling within the state of Illinois; it is one of only eleven (out of a total of approximately 1,300 recorded meteorites) to strike and damage buildings or other property; it represents the first authenticated instance of a meteorite striking a vehicle; and it was possible to observe the angle at which this meteorite arrived on earth by checking its point of rest with the hole through the car top and the roof of the garage. Few meteorites come to earth under circumstances making possible the assemblage of such accurate and complete records. The meteorite was obtained through the co-operation of Messrs. Ben Hur Wilson and Frank M. Preucil, Jr., of the Joliet (Illinois) Astronomical Society, good friends of the Museum who acted as agents for the institution. They not only obtained the material for exhibition, but they made a very thorough investigation, collecting unusually thorough and competent data, and making numerous photographs of important features.

Another notable purchase made during 1938 was that of the second largest single accession of bird specimens ever received at Field Museum. It is a magnificent series collected over a period of twenty years by the late Sir Frederick J. Jackson while he was Lieutenant-Governor of Kenya, and Governor of Uganda, in East Africa. The collection contains approximately 6,640 specimens belonging to more than 600 species. Also obtained was Sir Frederick's sumptuous three-volume monograph on these birds, published posthumously during the year. This work contains all the notes and observations made by Sir Frederick on the specimens which are now the property of the Museum, and makes the collection more than ordinarily useful. This acquisition particularly strengthens the Museum's ornithological material because it covers an area not well represented previously.

A notable collection of some 800 ceramic objects, of Chinese and Siamese origin, found in the Philippine Islands, has been placed in the Museum for study, by Mr. E. D. Hester, of Manila, Economic Adviser to the High Commissioner of the Philippines. These

ceramics range in date from about the thirteenth to the seventeenth century.

Mr. Philip W. Wolle, of Princess Anne, Maryland, placed on file in the Herbarium of Field Museum a considerable portion of the algal herbarium of his grandfather, the late Rev. Francis Wolle. Some 2,000 specimens of algae, including most of the material received by the Rev. Mr. Wolle in his exchanges with European workers during the years from 1875 to 1892, are thus being made available for study at the Museum.

The Museum was host to meetings of the Midwest Branch of the American Oriental Society, and the Chicago Chemists Club. The Director of the Museum, and Members of the staff of the Department of Anthropology, entertained the former group; Mr. Henry W. Nichols, Chief Curator of the Department of Geology, entertained the latter.

Among distinguished visitors entertained at Field Museum in 1938 were: His Royal Highness, Crown Prince Gustaf Adolf of Sweden (who is an archaeologist and an Honorary Member of the Museum); Count Nils Gyldenstolpe, Curator of Birds at the Naturhistoriska Riksmuseet of Stockholm, a member of the royal party; Mayor Edward J. Kelly, of Chicago, and other members of the official party who accompanied the Prince; Brother Marie-Victorin, of the University of Montreal; Dr. Ivan M. Johnston, of the Arnold Arboretum, Jamaica Plain, Massachusetts; Dr. Fred A. Barkley, of the University of Montana; Mr. Merton J. Reed, of the University of Montana; Professor Langdon Warner, of the Fogg Museum at Harvard University; Dr. John L. Myres, Professor of Ancient History at New College, Oxford, England; Dr. Robert T. Hatt, of the Cranbrook Institute of Sciences, Bloomfield Hills, Michigan; Miss Malvina Hoffman, of New York; Dr. A. E. Douglass, of the University of Arizona, Tucson; Dr. Olov Janse, Professor at the University of Paris, and Corresponding Member of l'Ecole Française d'Extrême-Orient, Hanoi (Tonkin), Indo-China; Dr. John Beattie, Conservator, Museum of the Royal College of Surgeons, London; Dr. W. R. B. Oliver, Director of the Dominion Museum, Wellington, New Zealand; Mrs. Eric Scott, Education Department, Tasmania; Mr. E. O. G. Scott, Assistant Curator, Queen Victoria Museum and Art Gallery, Launceston, Tasmania; Mr. Thomas R. Adam, of the American Association for Adult Education, New York; Dr. Franz Weidenreich, Honorary Director of the Cenozoic Research Laboratory, Geological Survey of China, Peiping; Mr. Ludwig Glauert,

Curator of the Western Australia Museum, at Perth; Dr. Ales Hrdlicka, of the United States National Museum, Washington, D.C.; Dr. Vladimir Fewkes, archaeologist of Savannah, Georgia; Dr. F. F. Koumans, Leiden Museum, Leiden, Netherlands; Dr. C. G. Seligman, retired professor of ethnology of the University of London, and Mrs. (B. Z.) Seligman, who has collaborated with her husband on his many researches and scientific publications: Dr. Hannah Rydh, archaeologist of Upsala University, Sweden; Miss Anna Rothmann, of the Albany Museum in Grahamstown, South Africa; Dr. Carl G. Alm, of the Botanical Garden of the University of Upsala, Sweden; Dr. Francis W. Pennell, of the Philadelphia Academy of Natural Sciences; Miss Camilla Best, Director of Visual Aids, New Orleans, Louisiana; Mr. V. F. Fisher, ethnologist at Auckland Museum, Auckland, New Zealand; Dr. Paul Wallace Gregory, of the College of Agriculture, University of California; Dr. Walter Granger, of the American Museum of Natural History, New York; Mr. Alvin Seale, Director of Steinhart Aquarium, San Francisco; Mr. Charles E. Jackson, Acting Commissioner, Bureau of Fisheries, Washington, D.C.; Mr. L. M. Klauber, of San Diego, California, President of the American Society of Ichthyologists and Herpetologists; Mrs. Nicholas (Alice Roosevelt) Longworth, of Washington, D.C.; Mr. John W. Davis, former United States Ambassador to the Court of St. James's; Miss Anna Shepard, ceramic analyst on the staff of the Carnegie Institution, Washington, D.C.; Mr. Kermit Roosevelt, co-leader of Field Museum expeditions in past years, and a trustee of the American Museum of Natural History, New York; Countess Gisèle de Diesbach, Attachée to the Louvre, Paris, as head of the lecture department; Mr. A. S. Arguelles, Director of the Bureau of Science, Manila, Philippine Islands; Dr. Alexander Wetmore, Director of the United States National Museum and Assistant Secretary of the Smithsonian Institution, Washington, D.C.; Dr. C. L. Lundell, of the Herbarium of the University of Michigan, Ann Arbor; Dr. Leon J. Cole, Professor of Zoology, University of Wisconsin, Madison; Mr. Stewart H. Perry, of Adrian, Michigan, an authority on meteorites; Mr. Bertrand Schultz, Assistant Director, Nebraska State Museum, Lincoln; Dr. Gerald W. Prescott, Associate Professor in the Department of Botany, Albion College, Albion, Michigan; Mr. Russell Plimpton, Director of the Institute of Art, Minneapolis; Mr. Paul Frank, of the National Park Service staff at Zion National Park, Utah; Dr. Philip Drucker, Department of Anthropology, University of California; Mr. Michael

Lerner, sportsman, of New York City; Dr. Paul Ganz, a professor at the University of Basel in Switzerland, and President of the International Commission on the History of Art; Dr. William K. Gregory and Mr. Harry C. Raven, both of the American Museum of Natural History, New York; and Mr. Charles Lesley Ames, President, and Mr. William Mitchell, Secretary, of the Saint Paul (Minnesota) Institute.

Among notable research accomplishments of the year was the establishment of a fossil ancestor of the giant panda, and its smaller cousin, the "ordinary" panda, by Mr. Paul McGrew, Assistant in Paleontology. The extinct form was identified from fragmentary specimens discovered by Mr. McGrew in the lower Miocene deposits of western Nebraska. It lived about 20,000,000 years ago and has been given the name *Cynarctoides*.

Research conducted on a fossil skull of an extinct form of crocodilian, bearing small horns, resulted in the establishment and naming of a new genus and species by Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles. The specimen was excavated in western Colorado in the preceding year by a party consisting of Mr. Elmer S. Riggs, Curator of Paleontology, Mr. Bryan Patterson, Assistant Curator of Paleontology, Mr. James H. Quinn, Assistant in the Division of Paleontology, and Mr. Theodore Burdosh, a volunteer assistant. The name *Ceratosuchus burdoshi* was given to the new species.

A notable experiment was conducted in the Department of Botany when some seeds of the pink lotus of the Orient (*Nelumbium Nelumbo*), estimated to be between 300 and 500 years old, were received from Manchuria by way of Japan through the University of Chicago. It is believed that the resulting plants represent the longest duration on record of delayed germination of a flowering plant. After the leaves had begun to grow to a length of several inches, the plants were turned over to the Garfield Park Conservatory, where they are flourishing in a pool.

A rare treeshrew (*Dendrogale*), of which specimens were collected in 1937 in French Indo-China by Dr. Wilfred H. Osgood, Chief Curator of the Department of Zoology, was subjected to study by Dr. Osgood and Mr. D. Dwight Davis, Assistant Curator of Anatomy and Osteology. As a result, this animal is now thought to be the oldest known living relative of man, usurping from that distinction the pen-tailed treeshrew which had previously been generally

accepted by zoologists as the "original great-grandfather (many generations removed) of the human race."

A report was published in 1938 on the results of research conducted on specimens of stems, branches, roots, and a native decoction from a twining shrub or woody climber of Peru known as *Caapi* or *ayahuasca*. The plant is the source of a powerful narcotic used in rites and divinations by medicine men of the Indians in the Peruvian montaña region. Material of this plant, collected in 1930 by Mr. Llewelyn Williams, Curator of Economic Botany, while leading the Marshall Field Peruvian Expedition, was turned over to Dr. K. K. Chen of the Research Laboratories of Eli Lilly and Company, Indianapolis, Indiana. Dr. Chen, in his article now published in the *Quarterly Journal of Pharmacy and Pharmacology*, a British technical journal, states that the active principle is harmine, an alkaloid already known from another plant source. In the words of Dr. Chen, "the mystery of the action of *Caapi* is thus resolved." In his experiments with harmine on mice and rabbits, Dr. Chen found that the effects of the drug were neutralized to a large extent by injections of certain barbituric acid derivatives which appear to offer a possible means of treatment for *Caapi* poisoning.

A report was received from Dr. B. V. Skvortzow, of Harbin, Manchukuo, on the results of his investigations made on diatoms found in a small amount of sediment, collected by the Department of Botany of Field Museum at his request, from ordinary Chicago tap water by use of a filter. From this specimen Dr. Skvortzow selected for description seventeen kinds of diatoms (minute aquatic plants visible only under a microscope of fairly high power), some of which were previously unknown to science. Dr. Skvortzow is studying the fresh-water diatoms of the entire world.

The excellent and characteristic specimens of corn from Peru in Field Museum's Department of Botany were studied by Mr. R. C. Mangelsdorf, of Texas Experimental Station, who has found evidence that points to the Peruvian area as the place of the original domestication of the corn plant. Earlier theories had indicated the Mexican-Guatemalan area as the original locale for this food plant, which was an indispensable factor in the development of pre-Columbian civilizations.

Various other scientific research projects were undertaken by members of the Museum staff during the year, and details of these will be found in the departmental sections of this Report. Staff members also attended a number of important meetings of learned

societies. Dr. Henry Field, Curator of Physical Anthropology, spent several weeks at Harvard University in February, completing a research project on the physical anthropology of the modern peoples of Iraq. Prior to this he lectured on the work of his several expeditions in the Near East before an audience at the Colorado Fine Arts Center in Colorado Springs. In July and August Dr. Field made an extended visit to Europe, attending scientific meetings in Copenhagen, Brussels, and London, and presenting papers at each. At the Congress of Anthropological and Ethnological Sciences, in Copenhagen, he was an official delegate from the United States. While in Europe he also collected data for a tribal map of Iran, and assembled material for a report on the Ossetes and Yezidis of Georgia, U.S.S.R. In December he gave an illustrated lecture before the joint meeting of the American Historical Association and the American Oriental Society in Chicago. During the year he delivered other lectures and appeared in numerous radio programs.

Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles, was honored by election to membership in the American Society of Zoologists. He lectured before the Zoological Club of the University of Chicago, the Cornell Club of Chicago, and other organizations.

Mr. C. Martin Wilbur, Curator of Chinese Archaeology and Ethnology, visited the Museum of the University of Michigan to make a study of a notable collection of Chinese ceramics excavated in the Philippines. He lectured before the Fortnightly Club and the Hoosier Art Patrons Association. Late in the year Mr. Wilbur spent a month making a survey of Chinese collections in museums of eastern and central states, including institutions in Detroit, Toronto, Buffalo, Boston, Cambridge, New Haven, New York, Philadelphia, Baltimore, Washington, Cleveland, Kansas City, St. Louis, Milwaukee, and Minneapolis.

Dr. Wilfred H. Osgood, Chief Curator of the Department of Zoology, presented a scientific paper before the American Society of Mammalogists which met at San Francisco in July. Dr. Osgood is a Founder and a former President of this society, and is at present Chairman of its Committee on Nomenclature.

Mr. Rudyerd Boulton, Curator of Birds, spent several weeks in the east on special research on the birds of Angola (Portuguese West Africa), working principally on collections at the American Museum of Natural History, New York. He also made studies at the Museum of Zoology of the University of Michigan, and was

principal speaker at the annual meeting of the Michigan Audubon Society in June. In October Mr. Boulton attended the annual meeting of the American Ornithologists' Union at Washington, D.C., and was honored by election as Treasurer of the organization, and Business Manager of its quarterly journal, *The Auk*.

Mr. Paul C. Standley, Curator of the Herbarium, attended the dedication of the Fairchild Tropical Garden at Coral Gables, Florida. Dr. Julian A. Steyermark, Assistant Curator of the Herbarium, continued research and writing in connection with his forthcoming book on the flora of Missouri.

Dr. Francis Drouet, Curator of Cryptogamic Botany, attended the meeting of the American Association for the Advancement of Science held at Richmond, Virginia, in December, and presented a scientific paper.

Dr. C. E. Hellmayr, Associate Curator of Birds, who for some years has been in Vienna where he has been working on the large and important Field Museum publication, *Catalogue of Birds of the Americas*, moved to London because of Central European political conditions.

Mr. Sharat K. Roy, Curator of Geology, and Mr. Paul McGrew, Assistant in Paleontology, attended the meetings of the Geological Society of America, held at New York in December.

Dr. Paul S. Martin, Chief Curator of the Department of Anthropology, presented a report on the 1938 excavations of the Field Museum Archaeological Expedition to the Southwest before the meeting of the American Anthropological Association held at New York in December.

The Director of the Museum made contacts with officials of other museums in various parts of the country, and was a speaker on museum subjects before various societies, on a number of radio programs, and elsewhere. Among cities in which Mr. Gregg furthered this institution's relations with other museums during a tour of the east are Pittsburgh, Philadelphia, New York, Boston, Cambridge, Newark, and Washington. He also presided at the dedicatory exercises of the Psychological Museum, of Chicago, and spoke at the dedication of the new wing of the Museum of the Saint Paul Institute.

A number of lectures and radio talks on Museum subjects were given at various times by Staff Taxidermists C. J. Albrecht, John W. Moyer, and W. E. Eigsti.

Field Museum Press issued thirty technical scientific publications, and seven leaflets for lay readers. The technical publications circulate internationally among scientists, and among libraries and other institutions.

A 48-page pamphlet, *Field Museum and Group Education,* was issued in September by Field Museum Press for the use of school officials, principals, and teachers. The booklet, which is illustrated with twelve collotype plates, outlines the work carried on by Field Museum among school children through the N. W. Harris Public School Extension and the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures.

Toward the end of the year plans were completed for enlargement and improvement of *Field Museum News,* monthly bulletin published for the several thousand members of the Museum, and these were put into effect during December in the preparation of the issue for publication on January 1, 1939. The size of the bulletin has been increased from four to eight pages, and better legibility has been provided by increasing the white space between the lines of type. Thus the *News* has been brought into conformity with the typographical practice of most modern periodicals and newspapers, and a more complete coverage of Museum activities has been made possible as a service to Members.

For the benefit of bird lovers, a leaflet, *Haunts of Birds in the Chicago Region,* prepared by the Chicago Ornithological Society, was published by Field Museum Press. It provides a guide to recommended field trips, giving the best localities for observing birds, the kinds of birds which frequent each, and the routes for reaching them. Accompanying each copy is a map furnished by the Cook County Forest Preserve District.

Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles, is the author of another book for children, *Our Friendly Animals,* published in 1938 by M. A. Donohue and Company, Chicago. It is a companion volume to the same author's *Homes and Habits of Wild Animals,* published several years ago. Staff Taxidermist John W. Moyer completed preparation in 1938 of a book, *Lessons in Museum Taxidermy,* scheduled for publication early in 1939. It is intended as an aid both to the amateur who wishes to mount birds, mammals, fishes, etc. as a hobby, and to persons who wish to train themselves in taxidermy as a profession.

The metropolitan newspapers of Chicago, the community newspapers in various sections of the city, the papers of the city's suburbs,

and the press of the nation as a whole, through the co-operation of the national and international news agencies, kept constantly before the public the story of the accomplishments and the current activities of Field Museum. Likewise, the local radio stations, and also the national networks of various broadcasting systems, co-operated in giving publicity to the Museum.

During "Conservation Week," in April, arrangements were made whereby a series of six releases was published in the *Chicago Daily News*. These news stories covered various aspects of conservation, including wild flowers, mammals, birds, reptiles, amphibians, and natural mineral resources. The stories, except the introductory article, were written and signed by members of the scientific staff. The co-operation of the *Chicago Daily News* is sincerely appreciated. Each of the other local daily papers—the *Tribune*, *Times*, *Herald-Examiner*, and *Evening American*—at various times likewise contributed generous space for outstanding Museum news.

Through the interest of the Chamber of Commerce of Grand Junction, Colorado, as well as several service clubs of that city, and Mr. Alfred A. Look, an executive of the Grand Junction *Daily Sentinel*, monuments were constructed in 1938 from native rock at sites where important fossil dinosaur skeletons were excavated by a Field Museum expedition in 1900–1901. Bronze plaques were placed on these monuments to commemorate the expedition. Mr. Look, long an enthusiastic friend of the Museum's, whose many contributions of excellent fossil specimens resulted in his election as a Contributor to the Museum, reports that a movement is under way to have these sites preserved as public parks under perpetual protection. Both sites are on isolated buttes in the valley of the Colorado River, one west of Grand Junction, the other across the river from Fruita. The expedition thus commemorated was conducted under the leadership of Mr. Elmer S. Riggs, Curator of Paleontology. At one site was obtained the huge skeleton of *Apatosaurus* (also known as *Brontosaurus*), one of the largest forms of dinosaur, which now occupies a central position in Ernest R. Graham Hall (Hall 38). At the second site the expedition unearthed a genus of dinosaur previously unknown to science, almost giraffe-like in form, to which was given the name *Brachiosaurus*. As the first example of this animal discovered, this is a type specimen, of importance to scientists as a criterion for comparison of any further specimens which may be found.

The Museum continued co-operation with the School of the Art Institute of Chicago by providing facilities at this institution for the assistance of art students. Classes of children, ranging from the fourth elementary grade to high school age, were frequently brought to Field Museum on Saturdays by their instructors from the Art Institute, and the exhibits in the Museum often served as suggestive material also for groups of more advanced students.

The Museum Cafeteria served 99,122 persons during 1938, as compared to 103,682 in 1937. Many additional thousands used the rooms provided for children and others who bring their own lunches. In these latter, tables and benches are available, and a lunch counter is operated where supplementary refreshments such as sandwiches, hot beverages, soft drinks, ice cream, etc., may be obtained.

Under an agreement made with Mr. Emil Liers, of Homer, Minnesota, Field Museum has undertaken the task of recording in motion pictures the life story of the otter. Mr. Liers is perhaps the only man in the world who is breeding and training otters. His thorough knowledge of their habits will make it possible to produce a film of high human interest and scientific accuracy. Photographs have been taken in various locations in the otter country of Minnesota, and arrangements have been made for other "shots" which will show the otter under water—an element in which he is perfectly at home. The photographic work is being done by Mr. C. J. Albrecht of Field Museum's staff.

Early in the year, friends of the Museum arranged for a private showing of natural color slides made by Mr. Clarence B. Mitchell, Research Associate in Photography, illustrating objects in the collection of Chinese jades bequeathed by the late Mrs. George T. Smith. The showing was held at the Casino, where Mr. C. Martin Wilbur, Curator of Chinese Archaeology and Ethnology, lectured on the subject illustrated.

Plans were prepared for important improvements in the gem room (H. N. Higinbotham Hall, Hall 31). This project awaits the provision of funds, which to date have not been available, before it can be carried out.

For the Department of Botany, orders for six 8-door herbarium cases, and twelve 6-door cases, were authorized.

A number of additions to the staff, and other changes of personnel, were made during the year:

Dr. Fritz Haas, for many years Curator of the Department of Mollusks at the Senckenberg Museum, Frankfort-on-the-Main,

Germany, was appointed Curator of Lower Invertebrates at Field Museum. Dr. Haas is well known and distinguished in his field, and recognized as one of the leading living authorities on mollusks. He is the author of numerous publications based on the important biological researches which he has conducted. He came to America under the sponsorship of the Emergency Committee in Aid of Displaced German Scholars, New York, and the Jewish Welfare Fund, Chicago, which jointly have furnished funds from which a part of his salary is being paid for a period of one year.

Dr. Francis Drouet was appointed Curator of Cryptogamic Botany, for a two-year period. A graduate of the University of Missouri, he was formerly connected with the Osborn Botanical Laboratory of Yale University and the Marine Biological Laboratory in Woods Hole, Massachusetts. For a time he was commissioned by the Brazilian government to perform special research.

Mr. Paul McGrew was appointed Assistant in Paleontology. An alumnus of the University of Nebraska, he specialized in paleontology as a post-graduate student at the Universities of California and Chicago.

Mr. John R. Millar, who became Acting Curator of the N. W. Harris Public School Extension in 1937, was appointed Curator in 1938. He is a former member of the staff of the Department of Botany, where he began his Museum service in 1918.

Two guide-lecturers were appointed to the staff of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures. They are Miss Elizabeth McM. Hambleton, who in the previous year worked as a volunteer Associate in Southwestern Archaeology in the Department of Anthropology; and Mr. Loren P. Woods.

Miss Elizabeth Peitzsch was appointed Secretary to the Director.

At the end of 1938 the following appointments were made, to become effective from January 1, 1939:

Mr. William H. Corning—Superintendent of Maintenance. Mr. Corning joined the staff of Field Museum late in 1920 as Chief Engineer, and has served in that capacity since that time.

Mr. William E. Lake—Chief Engineer. Mr. Lake came to the Museum July 1, 1922, as an engineer, becoming Assistant Chief Engineer in 1926.

Mr. Arthur G. Rueckert—Staff Artist. Mr. Rueckert joined the staff in November, 1923, as a taxidermist. In addition to a general

experience in taxidermy and the making of accessories for exhibits, Mr. Rueckert assisted the late Charles Abel Corwin in the painting of many of his more recent backgrounds, and has carried on this work since Mr. Corwin's death.

Mr. Robert L. Yule—a Preparator, in the Department of Anthropology, where he has been employed in various capacities since February 1, 1932.

Mr. W. E. Eigsti—a Taxidermist. Mr. Eigsti came to Field Museum in February, 1931, as an assistant taxidermist, since which time he has mounted many splendid specimens for the Museum collections.

Mr. Robert E. Bruce—Purchasing Agent. Mr. Bruce joined the staff in October, 1927, and served in various clerical capacities until August, 1938, when he became Acting Purchasing Agent.

Mr. Noble Stephens—Manager of the Book Shop. Mr. Stephens has been on the staff of the Museum during the past year and has been in charge of the Book Shop since it was opened in April. He is largely responsible for the splendid showing made by this new venture.

Mr. Warren E. Raymond—Assistant Registrar. Mr. Raymond joined the staff October 1, 1938, as a clerk, and is now appointed to a new position created because of the increasing volume of business in the Registrar's office.

Mr. Joseph D. Todd— Carpenter Foreman. Mr. Todd came to the Museum as a carpenter in November, 1927, after a wide experience in both exterior and interior construction, and in his new position will be of great value to the Superintendent of Maintenance.

Mr. E. S. Abbey—Captain of the Guard. Mr. Abbey joined the guard force in 1905, and became Sergeant in May, 1924. A reorganization of the guard force retains Mr. Abbey as the senior member of the organization with the new title of Captain.

Mr. Patrick Walsh—Sergeant of the Guard. Mr. Walsh came to Field Museum in February, 1894, in the Maintenance Division. He is one of the oldest employes in point of service. In August, 1905, he became a guard, and since January, 1930, has been Acting Sergeant on one of the night shifts.

Mr. David Conwill—Sergeant of the Guard. Mr. Conwill became a Museum guard April 1, 1931, immediately after his retirement from the United States Army.

Several members of the staff resigned during 1938. They are: Miss Velma D. Whipple, a guide-lecturer in the Raymond Foundation, who accepted a position as a teacher in the Chicago public schools; Mr. Phil C. Orr, Assistant in Paleontology, who became Curator of Archaeology and Paleontology at the Santa Barbara (California) Museum; and Mr. J. L. Jones, Purchasing Agent, who desired to make his home in Florida because of poor health.

Death took three veteran museum employes during 1938. Staff Artist Charles Abel Corwin, who had been associated with the institution for thirty-five years, died on January 27, in his eighty-first year. Mr. Corwin prepared nearly all the painted backgrounds used in the Museum as settings for habitat groups of modern mammals and birds, and for restorations of prehistoric peoples and animals. In addition to more than eighty such backgrounds he painted a series of large mural paintings of exotic plants and trees in the Hall of Plant Life (Hall 29). In his work he developed a technique which produced remarkably realistic results, and he was without doubt one of the foremost Museum artists in America. Prior to joining the staff of Field Museum, Mr. Corwin had a long and noteworthy career both as an independent artist, and on commissions for other institutions, among them the American Museum of Natural History, New York, the Los Angeles Museum, and the Colorado Academy of Sciences in San Francisco. At one time he was an instructor at the School of the Art Institute of Chicago. His paintings, shown at exhibits in Chicago and elsewhere, won many honors and prizes.

Mr. John E. Glynn, employed at the Museum since 1894, and Superintendent of Maintenance since 1920, died on October 13. Mr. Glynn had been largely responsible for supervising the gigantic task of moving the Museum's exhibits, study collections, and other possessions from the building originally occupied in Jackson Park, and reinstalling them in the present building, which was opened to the public in 1921. This immense moving operation, including hundreds of thousands of items, many of them extremely fragile, was conducted with practically no loss or damage. Mr. Glynn designed many of the best types of cases used in the Museum, including the built-in cases which are architecturally integrated with the interior of the building, and which are used for the installation of habitat groups and other dioramas. He also made improvements in methods of installation of exhibits, lighting, etc. A notable accomplishment was his reconstruction in the Hall of Egyptian

Archaeology (Hall J) of two complete mastaba tomb chapels of Egypt's Old Kingdom period. These were assembled, using chiefly original stone blocks brought from Egypt.

Thomas W. Warke, a faithful member of the maintenance force, who had worked at the Museum since 1894, died on January 16. Like Mr. Glynn, he was in point of years of service one of the Museum's oldest employes.

Others who died were Mr. Michael Kirby, and Mr. R. N. Abbey, former members of the guard force. Mr. Kirby had been employed by the Museum since 1917, and Mr. Abbey since 1908.

Under the provisions of the Field Museum Employes' Pension Fund, insurance was paid in the amounts indicated to the beneficiaries of Museum employes who died during 1938: to the widow of Mr. Charles A. Corwin, $4,000; to the widow of Mr. John E. Glynn, $6,000; to the widow of Mr. Thomas W. Warke, $4,000; to the beneficiaries of Mr. R. N. Abbey, $4,000; and to the widow of Mr. Michael Kirby, $2,500.

Mr. Thomas Hardy, a guard since 1910, having reached the age of 74 years, was placed on the Museum's pension payroll at his own request.

As a new measure for the welfare of employes of the Museum, arrangements were made whereby those who desire to do so may enroll in the Plan for Hospital Care, a corporation not for profit, which provides service in most of the leading hospitals of Chicago. Under this plan, employes pay a nominal annual fee which entitles them to as much as twenty-one days per year of hospitalization, together with the use of x-ray facilities, operating rooms, and other services, in any of the hospitals connected with the Plan; also, provision is made for similar service in hospitals of other cities and countries, should need arise while an employe is traveling. The plan also provides similar benefits for families of enrolled employes upon payment of a small additional fee. Enrollment is purely voluntary. Approximately 42½ per cent of the Museum employes have subscribed.

This plan for hospitalization at small cost, together with the life insurance provided for most Museum employes, has already proved of great advantage to many of the employes and their families in meeting the contingencies of life.

Valuable assistance in the scientific work of the institution was rendered by a splendid group of volunteer workers who performed

routine and scientific work in various departments of the Museum without remuneration. Newcomers to this group during the present year were: Miss Marjorie Kelly, Mr. John Rinaldo, Mr. Leonard Bessom, Mr. E. Fred Bromund, Mr. Robert T. Burton, Mr. Albert Enzenbacher, Miss Marian Geller, Mr. Jack Huber, Mr. John Kurfess, and Miss Claire K. Nemec. The services of this efficient group are deeply appreciated.

Volunteer workers who began activities in 1937 and continued during 1938 include Mr. Clarence B. Mitchell, Research Associate in Photography, engaged in a project of making color pictures of outstanding exhibits; Mr. Paul G. Dallwig, The Layman Lecturer, whose work is reported upon elsewhere in this book; Mrs. Edna Horn Mandel, Associate, Chinese Collections, who is working with Curator C. Martin Wilbur in a variety of Oriental studies; Mrs. Hermon Dunlap Smith, Associate, Birds, engaged in an ornithological research project in collaboration with Curator Rudyerd Boulton; and Miss Elizabeth McM. Hambleton, who, until her appointment in June to the staff of the Raymond Foundation, assisted Chief Curator Paul S. Martin as an Associate in Southwestern Archaeology.

The Museum is indebted also to other workers who have continued to render volunteer services on the staff for many years. These include Professor A. L. Kroeber, Research Associate, American Archaeology; Dr. T. George Allen, Research Associate, Egyptian Archaeology; Professor Samuel J. Record, Research Associate, Wood Technology; Professor A. C. Noé, Research Associate, Paleobotany; Dr. E. E. Sherff, Research Associate, Systematic Botany; Mr. H. B. Conover, Research Associate, Birds, and the Hon. R. Magoon Barnes, Curator, Birds' Eggs.

Again the Works Progress Administration of the federal government has performed noteworthy services for Field Museum. With many WPA workers continuing their work at Field Museum for several years, the value of their services has risen almost to a basis of equality with that of the junior members of the Museum Staff. Many tasks requiring expenditure of a great deal of time and meticulous labor have been completed or have been advanced to a point approaching completion. As members of the WPA become more proficient they are given more advanced tasks to perform. This plan results in greater values accruing to the Museum, and through it to the people of Chicago and the entire world of science. In several instances vacancies at Field Museum have been filled by transferring WPA workers to the Museum payrolls, and it is certain that the

training received at Field Museum will qualify many others for museum work elsewhere upon their eventual return to private employment. During the current year the WPA forces have been increased to a total of 215 workers. Their working time aggregated 337,756 hours, and the government paid them wages totaling $211,548. The range of the tasks to which they were assigned embraced scientific research, preparation of exhibits, clerical work, and general labor, assignments being made according to each individual's capacities and experience. In acknowledging the splendid services of the workers on these Projects (Nos. 3701 and 3709), the Director desires to acknowledge also the fine co-operation of those in charge, not only at the Museum, but in the Chicago administrative offices of WPA.

It should be emphasized that the work done by WPA employes is of a character that could not be undertaken by the Museum's regular staff because of the pressure of more urgent tasks. The regular employes on the Museum's own payroll continued with their usual duties.

Examples of the work performed at Field Museum by WPA employes were included in the Exhibit of the Women's and Professional Division of the WPA held at the Merchandise Mart from May 5 to 10.

Following is a report of the principal activities of the forces working under the direction of the Superintendent of Maintenance:

In the Department of Zoology the new mezzanine lined with steel cases for the storage of specimens, on the fourth floor, was completed early in the year. With construction almost finished in 1937, this work in 1938 included installation of the railing, and of some eighty shelves and sixteen liners in the cases. An insulated cooling room for the storage of zoological specimens in the flesh was constructed on the fourth floor, in connection with the main taxidermy shop. An air-cooled condensing unit and coil for the refrigerating equipment was installed by the Commonwealth Edison Company. Twenty trays were made for the storage of specimens of birds' eggs in a special room on the third floor. Partitions were built across Rooms 93 and 96 on the third floor to make four work rooms and offices, and window benches were constructed in Room 93. A base was constructed for the exhibit of baboons installed in Hall 15. In the new Hall of Fishes (Hall O), which is in preparation, and will contain both habitat groups and the systematic collection, a 100-foot wall case, and groundwork for a group of Maine fishes, were

built. Assistance was rendered in the installation of a whale shark exhibit under preparation in this hall, and of the narwhal group added to Hall N (Hall of Marine Mammals). In the latter hall revisions were made in the exhibit of walrus whereby the "midnight sun" was relocated to improve its effectiveness. Seven cases in Hall 20 (habitat groups of birds) were glazed, and the glass in all cases in Halls 13, 16 and 17 was taken out, cleaned, and re-set. A case in Stanley Field Hall was remodeled for the exhibition of the giant panda "Su-Lin," and a dissecting table was built for research on this animal in the Division of Anatomy and Osteology. The light box for a case in Hall 20, in which a group of rheas is to be installed, was rebuilt to permit the use of a new type of lighting.

For the Department of Botany, flush doors were installed on each side of the new diorama of alpine plants in Hall 29, and a railing was placed in front of the view glass. Two large new mural paintings were hung, framed and starched in Hall 25. In the working quarters on the third floor, additional steel cases for storage of botanical specimens were installed—eight in Room 11, four in Room 4, and twelve in Room 8.

An arch for the installation of a lintel from ancient Kish was built between Halls K and L of the Department of Anthropology. Cases for the exhibition of Kish archaeological material in Hall K were refinished and temporarily arranged for installation of exhibits. In Hall J (Egyptian archaeology) the cases for exhibition of mummies were thoroughly cleaned. For the steel storage files for storage of anthropological material seventy-five wooden trays were provided.

In the Department of Geology a case for the exhibition of the skeleton of the extinct *Moropus* was built and installed in Hall 38. A large relief map of North America, 10 by 15 feet in dimensions, presented by *The Chicago Tribune*, was hung in Hall 36. The exhibit of fluorescent minerals was moved to a new location in the passageway near Hall 34, and revamped. Pressed wood backs were fitted in eight cases for Halls 34 and 35.

The office of the Curator of the N. W. Harris Public School Extension was moved to a new room and fitted with work tables and sink. A number of changes were made in the work rooms of this Department. Various fixtures were installed, four new benches were made, and an exhaust fan and hood erected.

General maintenance of the Museum building included the repairing of 565 windows on the second and third floors. New sills, sashes and frames were installed where needed. In the Cafeteria

the linoleum floor was repaired and waxed, cracks in the plaster of the walls were repaired and painted, and a new door frame was built for the large refrigerator. Five new cabinets for the storage of supplies were built for the Raymond Foundation and the Superintendent's office. An enclosure, with provisions for displays and for storage of books, was constructed to accommodate the Book Shop opened near the north entrance during the year. A large sign with raised letters indicating the new name of Hall 16—now Richard T. Crane Jr. Hall—was made and hung. Signs were hung also in Halls G, H, and 7. New window shades were hung in the Library, the Raymond Foundation office, the business offices, and the second floor exhibition halls. Two small skylights were re-covered, and eight were re-topped with roofing cement. Many leaks were found in the downspouts for drainage of rain and snow from the roof, and eight of the worst of these were patched, with new heads being made for four of them. A large amount of painting was done, including walls, ceilings, and in some cases floors, in the press room, Library, fourth floor work-rooms, exhibition halls K and L on the ground floor, the second floor bridge halls, the Director's anteroom, telephone operator's room, offices of the Divisions of Publications and Public Relations, the Superintendent's office, fan room, Rooms 93, 93-A, and 94 on the third floor, and three corridors on the ground floor. The wall-washing project undertaken by workers assigned to the Museum by the Works Progress Administration was continued throughout the year.

Herewith is a summary of the more important tasks accomplished during 1938 by the Chief Engineer and the men working under his supervision:

All three elevators—the passenger elevator, the freight elevator that conveys material to all floors of the building, and the hydraulic secondary freight elevator that carries material between the shipping room and the loading platform on the outside of the building—were overhauled. New bearings were installed in the motor of the main freight elevator. The pump of the hydraulic elevator was repacked, and new floor plates and side sheets were installed on the lift carriage. Extensive changes in the N. W. Harris Public School Extension quarters made necessary the installation of three new sinks, together with new water lines and drains, ten gas outlets, ten air outlets, and changes in electrical connections including twelve new drop lights and three outlets for power tools, etc. Completion of the new fourth floor mezzanine for storage of zoological specimens

necessitated the re-wiring of the west section of that floor. Both upper and lower tiers of storage cases were wired, and eighty-nine lights were installed. A pipe railing was cut for installation on the mezzanine. Lighting fixtures were hung in Hall L, and several electrical outlets for case lighting were installed in Hall K. In the latter, twelve cases also were wired for lighting. Several new circuits were run into Hall O and the cases there were wired for lighting. Two spotlights were installed in Hall 16 to illuminate the new sign designating it as Richard T. Crane Jr. Hall. A new electrical outlet was provided for the walrus case in Hall N because of changes made in the "midnight sun" illumination of this exhibit. Lighting fixtures were installed also in the new case containing the narwhal exhibit in Hall N. Other work concerned with lighting included provision of an extra electrical outlet required in completing the group of alpine plants in Hall 29, rewiring the exhibit of fluorescent minerals on the bridge near Hall 34, wiring seven cases for habitat groups of birds in Hall 20, wiring a new case in Hall 22, and providing outlets for the lights needed in display cases in the Book Shop. Additional drop lights were installed wherever required in offices and work rooms. An electrical alarm system was installed to provide working and quitting time signals for the WPA workers on the third floor. For the convenience of the Director, a new system of buzzers was installed between his office and that of his secretary. Extensive changes were made in Room 11 (assigned as an office to the Curator of Cryptogamic Botany), which required the installation of a new sink with drains and water piping, and changes in lighting. Larger steam radiators were installed in a number of former work rooms on the third floor to make them available for office and research work. Racks in the skin storage room of the main taxidermy shop were changed to allow the accommodation of larger skins. Many exhibition cases were moved for the various Departments to permit installation changes.

Severe tests were made of a new type of tubular fluorescent lamp, developed recently by the General Electric Company, to determine whether or not it would fade exhibited materials, and to ascertain its adaptability in other respects for Museum use. Fifteen cases in various parts of the building were equipped with these lamps. To date no fading of exhibited material has been discovered. A check on the amount of current consumed indicates an average saving of 71 per cent in wattage consumed as compared with the old type of lights. At the same time a great improvement was

obtained in the quality of the illumination. This indicates that adoption of these lights generally would make possible the lighting of many more individual cases with no increase in cost for electrical current. These lights offer great promise not only of vastly improved illumination of Museum exhibits, but may prove also of value for lighting of offices, the Library reading room, etc. They come in several different colors which make them especially valuable for obtaining different sorts of effects required in habitat groups, such as daylight, twilight, undersea scenes, etc.

The brick work on all boilers in the Museum's heating plant was repaired. The coal conveyor was overhauled, and new buckets were installed wherever necessary. New bearings were installed in the stoker motor, and other repairs made. Both air compressors were thoroughly gone over and all worn parts replaced. Heating equipment was thoroughly checked, traps cleaned, and all apparatus kept in good order. Because of the worn condition of the coal lorry in the boiler room, steel was purchased to rebuild it.

A contract was entered into by the Chicago Park District and the Museum whereby heat will be supplied from the Museum's steam plant for the new Park Administration building (at the north end of Soldier Field), construction of which was begun in 1938. The steam and return lines to this building have been installed by the Park District, and plans call for the delivery of steam beginning in the early part of 1939. Revisions were made in the contracts, which have been in force for a number of years, under which the Museum supplies heat required for the John G. Shedd Aquarium, and for Soldier Field (the latter contract being with the Chicago Park District). The new terms provide a more equitable basis for this service. During 1938, the Museum furnished 12,821,776 pounds of steam to the Aquarium, and 7,028,106 pounds to Soldier Field.

Reports in detail of the year's activities in each of the Museum's Departments and Divisions will be found in the pages which follow:

DEPARTMENT OF ANTHROPOLOGY

EXPEDITIONS AND RESEARCH

The Field Museum Archaeological Expedition to Southwestern Colorado, generously financed by President Stanley Field, spent four months in the field (June to October). This season was very successful and profitable from every point of view.

The expedition was in charge of Dr. Paul S. Martin, Chief Curator, who was ably assisted by Messrs. Carl Lloyd, Alexander Spoehr,

CHINESE POTTERY JAR

Decorated with a stamped design based upon motif of stags. Third century B.C. or later

George T. and Frances Gaylord Smith Hall (Hall 24)

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

and John Rinaldo. All photographs were taken by Mr. Robert Yule, Assistant in the Department of Anthropology. An excellent 16-millimeter Ciné-kodak was presented to the leader of the expedition by Mrs. Edna Horn Mandel, volunteer associate in the Department, making it possible to take motion pictures in color of the work in the field.

Excavations were conducted on the ruins of two large villages which are probably the most ancient in southwestern Colorado. They may be classified as belonging to the Modified Basket Maker Period. Because the researches of the summer have not yet been thoroughly collated, the descriptions and summary herewith given are tentative, and the chronology is inferential.

The people of the Modified Basket Maker Period constructed rooms of three kinds:

(1) Rooms with floors a few inches below the ground surface, and walls consisting of upright slabs topped by rubble of small stones set in abundant mortar. These rooms were contiguous. Each of these slab-walled rooms was covered with a roof supported by four upright posts, one set in each corner. It is assumed that these posts were forked to hold the main roof beams upon which smaller beams were then laid and in turn covered with bark and mud. The exact use of these rooms is not known, but it seems probable that they served as granaries and general store rooms.

(2) Rooms, built contiguously, with walls of upright posts (set stockade fashion) and mud. The spaces between the posts were plugged with mud in which leaves, grass, and reeds were used as binder. These houses were roofed by means of poles, bark, and mud, all supported by forked, upright posts. In each room there was at least one firepit, sometimes two. Many of them had large cists, or storage pits, sunk in the floor. These rooms varied in size, but measured on the average about six by eight feet. What they were used for is not known. Dr. Martin's guess is that they may have been living quarters.

(3) Pit houses (so-called because they are in reality large pits), the floors of which were six or seven feet below ground level. Most of these were about fifteen feet square. The entrance to a pit house consisted of a small antechamber (to the south) connected to the house proper by a short passageway and a door in the south wall. In the floor, near the center of the room, was a firepit. An east-to-west partition wall divided the room into unequal sections, with the larger space to the north, and the smaller one to the south.

The roof, composed of logs, was supported by four large posts, the upper ends of which were probably forked to provide a resting-place for the main stringers. In the floor, apparently without any definite arrangement, were numerous holes, large and small, deep and shallow. The use of these is unknown—some may have served as pot-rests, and one (north of the firepit and nearest to it) may have been analogous to the *sipapu*, which is provided in modern kivas for the purpose of "communication with the spirits."

Whether these underground houses were used as living quarters, for celebrating ceremonies, or for both purposes, is not known. Because corn-grinding stones (metates and manos), cooking pots, and stone tools have been found on the floors of all of them, it seems a safe conjecture that they were used as living quarters. But it is also quite likely that they served as ceremonial chambers as well. It is difficult to explain why two kinds of living quarters—above-ground post-wall houses, and pit houses—existed simultaneously.

These various kinds of rooms were arranged as follows: a row of slab-walled rooms running east and west; to the south of them, a row of post-and-mud-wall rooms; and then again to the south the pit houses. It is interesting to note that this arrangement continued to prevail until late Pueblo times.

The pottery used by the people of this period was of three kinds: (1) A plain, undecorated smooth pottery with all coil marks obliterated (Lino gray); (2) a pottery with an orange background and red or black designs (Abajo red-on-orange); and (3) a gray pottery with black designs (Lino black-on-gray). The third type was less abundant than the others.

The stone and bone tools of this period were numerous. Passing over technical details and differences, suffice it to say that the stone tools comprised troughed stone metates (with only one end of the trough open), manos, axes, rubbing stones, hammer stones, mauls, polishing pebbles, projectile points, drills, knives, and scrapers. Many of these tools have distinguishing marks or characteristics which set them apart from those of later periods. The tools made of animal bones included awls, scrapers, and needles.

Corn, and possibly squash, were grown and used for food. About A.D. 800, the character of the houses changed. Pit houses were still in fashion, but the method of roofing them was slightly different. Instead of four main upright supports, many small poles were used. These, numbering as many as forty, were set around

the periphery of the room. The above-ground rooms were no longer constructed of slabs, posts, and mud, but were walled with crude, coursed masonry. However, the general arrangement of the village was the same as in earlier times, the construction of double rows of contiguous rooms being continued. The rear row was still used for storage (these rooms corresponding to the earlier slab-walled granaries), and the front row for living quarters (thus similar in function to the post-and-mud-wall houses of earlier times). All of the rooms used for living quarters were provided with firepits, and some of them with small ventilator shafts and deflectors. At this time large kivas became popular. At one village two were found, one measuring 82 feet in diameter, and the other, 43 feet. These are as large as any found in later villages.

The pottery was practically the same as that of the preceding period, except that the necks of some of the gray cooking vessels were "banded"—that is, the coils from which the pottery was constructed were obliterated on the body of the vessel, but not on the neck.

The stone and bone artifacts for these late Basket Maker houses continued unchanged.

Dr. Martin read a paper, summarizing his expedition's work, before the American Anthropological Association's meeting in New York (December 27–31). The final report on the summer's activity will be published early in 1939.

Mr. Richard A. Martin, Curator of Near Eastern Archaeology, spent most of the year in cataloguing material from ancient Kish, and arranging it for exhibition. Seven cases have been installed. A Sasanid portal, in what is to be the Babylonian hall, was completed and has already been opened to the public. Research on the continuity of Near Eastern pottery forms, and the development and influence of Neo-Persian architectural ornamentation, was conducted. Curator Martin also arranged a temporary exhibition of Sasanian objects for the members of the American Oriental Society, who met in Chicago in April. Another meeting attended by Mr. Martin was that of the American Historical Society held at Chicago in December.

Dr. Henry Field, Curator of Physical Anthropology, spent much of 1938 in research at various museums and universities in England and Europe. Acting for the Museum, he purchased several casts of human material. Appearing before the Second International Congress of Anthropological and Ethnological Sciences at Copen-

hagen in August, Dr. Field read a paper entitled "The Physical Characters of the Modern Inhabitants of Iran." At the meeting of the British Association for the Advancement of Science, in July, he was an American delegate.

On his return to the Museum, Dr. Field completed *Contributions to the Anthropology of Iran*, and continued preparation of *Contributions to the Anthropology of Georgia, U.S.S.R.*, both of which may be published in 1939. He also compiled data for a tribal map of Iran.

Dr. Wilfrid D. Hambly, Curator of African Ethnology, was engaged during the period from January to September in research required for the publication *Anthropometry of the Ovimbundu of Angola*. Data for this publication were collected by Dr. Hambly, as leader of the Frederick H. Rawson–Field Museum Ethnological Expedition to West Africa (1929–30), and this contribution to physical anthropology forms the third and last installment of the reports on the activities of that expedition. In this work, measurements of fifty-three adult males of the Ovimbundu are statistically treated, and compared with measurements of other groups of African Negroes. There are thirty plates, including photographic studies of tribal and ornamental body-marks and mutilation of teeth.

Work on the craniometry of 194 skulls from New Guinea was continued at intervals throughout the year. Measurements have been completed, and the task of making a detailed comparison of the data with the records of other observers has begun. These specimens were collected by Dr. Albert B. Lewis, Curator of Melanesian Ethnology, who was leader of the Joseph N. Field Expedition to New Guinea in 1909–1913.

In June, the task of rearranging and recataloguing a large collection of osteological material was undertaken. The specimens involved are stored in the drawers of steel cabinets. A numbering system facilitates ready reference. The new catalogue aims to give not merely a list under geographical headings, but a fairly detailed summary of the condition of all the material. When typed and indexed, it will be valuable for reference by students. A research worker may quickly ascertain from it the amount and condition of material available for his particular study.

Mr. C. Martin Wilbur, Curator of Chinese Archaeology and Ethnology, devoted considerable time to research on slavery in China during the Former Han period (206 B.C.–A.D. 25). This subject has anthropological interest because it deals with an important social,

economic, and legal institution in a formative stage in Chinese history. Many similar studies of slavery have been made by scholars working in the history of ancient Egypt, Greece, and Rome, but no other western scholar has studied intensively Chinese slavery in the period roughly equivalent to the last two centuries of the Roman Republic. The sources for this study are entirely Chinese documents written during the Han period. While these fully report major historical movements and important people of the ruling class, they almost completely disregard the common people, of which the lowest class were slaves. Fortunately, however, many incidental references to slaves, who were in some way connected with important people or events, appear in the documents. By a minute study of these apparently trifling references it is possible to learn much about the social, economic, and legal aspects of the ancient Chinese institution of slavery, and to obtain a picture of the daily life of a slave.

Curator Wilbur also completed the necessary study for the publication of a manuscript, left uncompleted by Dr. Berthold Laufer, late Curator of Anthropology, on the diffusion of the potato. This was published as Part I of *American Plant Migration*. A survey of Chinese collections in twenty-one major eastern and middle western museums constituted another valuable research undertaking conducted by Mr. Wilbur. His time was also largely devoted to systematizing working materials for the study of Chinese anthropology. A store-room containing a large east Asiatic study collection was completely overhauled and reorganized. A photograph file for east Asiatic archaeology and ethnology was established, and several thousand valuable photographs were classified and arranged.

Mrs. Edna Horn Mandel, Associate in the Chinese Collections, continued her project, as a volunteer worker, to study the Museum's Chinese paintings and sculptures with a view to making both exhibits and the large study series more useful to students. The study collection, numbering several hundred items, has been made easily accessible through adequate filing and indexing. Plans have been made for more effective exhibition of the paintings on display to the public. Mrs. Mandel has also assembled all relevant data on Chinese painting prior to the T'ang period, both historical and graphic. To further this research project, she has spent part of her time studying Chinese painting and the Chinese language at the University of Chicago. She has been of great assistance also in problems of exhibition, in giving information to visitors, and in collaboration on the arrangement of materials in the Chinese division.

In co-operation with Mr. Wilbur, Mrs. Rose G. Miller has undertaken to systematize the Museum's collection of several thousand Chinese rubbings. These rubbings, taken from monuments produced during the last three thousand years, offer invaluable studies of Chinese fine arts, literature, calligraphy, religion, and daily life. An adequate storage and filing system has been worked out, and Mrs. Miller has generously undertaken to arrange and classify the rubbings, index their contents, and prepare a draft catalogue of a large number presented to the Museum by Dr. Laufer. Her knowledge of Chinese makes her work especially valuable.

Reference has already been made to two of the publications issued during the year: Part I of *American Plant Migration* (*The Potato*) and *Anthropometry of the Ovimbundu*. Other publications which came from the press were: *Archaeological Work in the Ackmen-Lowry Area*, by Dr. Paul S. Martin, and *The High Priest's Grave of Chichen Itza*, written by Mr. Edward H. Thompson, and prepared for publication by Mr. J. Eric Thompson, who was formerly a member of the staff. On the press at the end of the year was Part II, Section 2, *Archaeology of Santa Marta, Colombia*, by Dr. J. Alden Mason, another former member of the Department staff.

Fifty articles for *Field Museum News* complete the list of the published material authored by the staff of the Department during 1938. Data were furnished also for thirty-five newspaper articles.

The rendering of assistance to students, the making of identifications of specimens brought in by visitors, and the answering of numerous inquiries by telephone and letter occupied much of the time of the staff.

ACCESSIONS—ANTHROPOLOGY

During 1938 the Department of Anthropology received twenty-three accessions comprising 32,817 specimens. Of the total number, 32,725 specimens resulted from a Museum expedition, one specimen was acquired by exchange, one by purchase, and the remaining eighty-nine were gifts.

A complete list of these accessions is appended to this Report (p. 424), but several deserve special mention here.

The outstanding accessions fall mainly into two categories: textiles and ceramics. The textile collections were enriched by the addition of old and rare specimens of Navaho, Mexican, and Algerian weaving, given by Mr. Homer Sargent, of Pasadena, California (formerly of Chicago), and by an unusual specimen of Balinese

painted cloth donated by Miss Helen R. Gilbert, of Chicago. Two rare ceramic statues of knights, from an anonymous donor, augment the Chinese collection of mortuary figurines collected thirty years ago by Dr. Berthold Laufer, to show how these guardians of the tomb developed in China out of the ancient Indian god of death. Mrs. William B. Berger, of Denver, Colorado, added to the Near Eastern collection a gift of two tablets inscribed with Babylonian contracts. An exchange with the Brooklyn Museum gave the Department a beautifully executed model of a Yucatecan Mayan temple. Through the generosity of Curator Henry Field, five rare pieces of Roman marble were received. Chief Curator Martin brought the Department its largest single accession as a result of the Archaeological Expedition to Southwestern Colorado. It is notable not for quantity alone, but also because it includes material, mainly pottery, on which no report has ever before been issued. Study of it, when completed early in 1939, will produce a much needed addition to archaeological knowledge of the southwestern United States.

An important addition to the Chinese collections is a brown pottery jar about ten inches high, covered with a stamped design of stags or ibexes (Plate XXVII). This piece came from the region of Loyang in Honan province, and is thought to date from the third century B.C. It has been placed on exhibition in George T. and Frances Gaylord Smith Hall (Hall 24). Similar Chinese jars are known only in the University Museum, Philadelphia, and in the Louvre, Paris.

CATALOGUING, INVENTORYING, AND LABELING—ANTHROPOLOGY

For sixteen of the twenty-three accessions received, entries were made. Twenty-six accessions of previous years likewise were entered or partly entered.

Catalogue cards prepared during the year totaled 1,653. Of these, 1,220 were entered. Since the opening of the first volume, the total number of catalogue cards entered is 217,290.

Distribution of the catalogue cards for the current year was as follows: North American archaeology and ethnology, 706; Central and South American, and Mexican archaeology and ethnology, 23; European archaeology and ethnology, 82; Japanese and Chinese archaeology and ethnology, 134; African ethnology, 16; Egyptian ethnology, 3; Kish and other Near Eastern archaeology, 623; East

Indian ethnology, 31; Balinese ethnology, 1; Malagasy ethnology, 12; Polynesian ethnology, 1; and physical anthropology, 21.

For use in exhibition cases, 1,781 labels were supplied by the Division of Printing. These were distributed as follows: Hall of the Stone Age of the Old World, 9; North American archaeology, 11; ethnology of the Southwest, 2; Korea, 24; India, 884; China, 213; Chinese jades, 323; Kish, 243; Africa, 6; Madagascar, 4; Egypt, 56; physical anthropology, 6.

In the departmental albums 698 additional photographs were mounted. Four new albums were opened.

INSTALLATIONS AND REARRANGEMENTS—ANTHROPOLOGY

One of the major installations completed in the Department was that by Curator Lewis of the Hall of Asiatic Ethnology (Hall L) which was opened to the public in August. Two and one-half years of steady work, including much research, were necessary to prepare this hitherto unexhibited material. Preparators J. William Harrison and Herbert E. Weeks co-operated with Dr. Lewis throughout the task. This hall is devoted to Asiatic ethnology exclusive of China, Japan, and Tibet. Among the places represented are Korea, India, Nicobar Islands, Andaman Islands, Siberia, Siam, Ceylon, and the islands of Sakhalin and Yezo, the last named being the home of the interesting and almost extinct Ainu people.

In Hall 24 (Archaeology of China), Curator Wilbur and Mrs. Mandel, Associate in Chinese Collections, made a new departure in exhibition of porcelains. In a case remodeled by Preparator Weeks, the usual painted background has been replaced by a wood veneer which displays the specimens to better advantage. Curator Wilbur, assisted by Preparator Harrison, rearranged a second case of Chinese pottery to eliminate over-crowding of specimens.

The largest single cache of flint discs ever found in America was placed on exhibition in Hall B at the beginning of the year. They are installed as nearly as possible in the same position that they occupied in the Hopewell Mounds of Ohio.

The final case of lower invertebrates, in a series begun in 1937, was completed for the Department of Zoology by Preparator Weeks. He also prepared a small temporary exhibit of American Indian material for the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures.

Curator Henry Field began rechecking all specimens in the Hall of the Stone Age of the Old World (Hall C), and revised the labels

and maps in Chauncey Keep Memorial Hall (Races of Mankind, Hall 3).

Hall K, in which Near Eastern exhibits are being prepared, will probably be opened in 1939. It now contains three cases of stucco, four cases of pottery, one arch, and a beautiful Sasanian gateway, all of which resulted from the Field Museum–Oxford University Joint Expedition to Kish. These have been restored and repaired, under the supervision of Curator Richard A. Martin, by an expert plaster artist employed for the Museum through the federal government's Works Progress Administration. To facilitate access to the newly opened Hall L, the western end of Hall K, containing the Sasanian gateway and arches, has already been placed on exhibition.

Mr. Tokumatsu Ito, Ceramic Restorer, treated, repaired, and restored 350 objects.

Mr. Robert Yule, Preparator, marked catalogue numbers on many objects, made the drawings and maps for the report of Dr. Martin's 1937 expedition to the Southwest, and set the Chinese type used in the late Dr. Berthold Laufer's book, *The Potato*, which was published in 1938. Mr. Yule was photographer for Dr. Martin's 1938 expedition and, upon his return, edited the natural color motion picture films, inserting explanatory titles. He also made 138 colored lantern slides showing phases of the summer's work.

Three volunteer associates have given valuable assistance in Southwestern archaeology. Prior to her transfer in June to the staff of the James Nelson and Anna Louise Raymond Foundation, Miss Elizabeth McM. Hambleton helped Dr. Martin complete and publish the report of his 1937 expedition to Colorado. Mr. John Rinaldo joined the 1938 expedition as a volunteer, and is now engaged in research work and in restoration of the pottery which Dr. Martin excavated. Miss Marjorie Kelly, of the University of California, is assisting him in this work. She has classified and computed percentages on more than 30,000 pieces of pottery from the 1938 expedition, and has compiled these data statistically and graphically.

In addition to the plaster work in Hall K, previously mentioned, workers employed for the Museum by the Works Progress Administration have rendered much-needed services in all sections of the Department. A competent assistant has completed the sorting, cleaning, repairing, and identifying of stored collections in five large rooms.

The subject-geographical index of the Department's collections, begun in 1937, now covers approximately one-third of the total number of specimens. The largest section, that for North America, is more than half finished, and is rapidly moving toward completion in the hands of a skilled cataloguer. Another worker has nearly completed the immense task of checking and correcting all labels in the exhibition cases, while a librarian is working on a subject index of articles in periodicals published in several languages. Much clerical and statistical work of great value, including checking photographs and manuscripts, sorting specimens, etc., has been accomplished.

Technical and editorial aid was furnished by an especially qualified worker. She inaugurated work on the subject-geographical index of the North American collections, helped prepare two reports for publication, and compiled data on the collections for inclusion in a handbook of Hispanic collections in the United States.

DEPARTMENT OF BOTANY

EXPEDITIONS AND RESEARCH

With funds given by Mr. Sewell L. Avery, a Trustee of the Museum, an expedition was sent to the Nova Scotia shore of the Bay of Fundy to obtain data, material, photographs, and color notes for an ecological group showing typical inter-tidal vegetation of northern Atlantic shores.

The task was entrusted to Mr. John R. Millar, formerly on the staff of the Department of Botany, and now Curator of the N. W. Harris Public School Extension. He left Chicago in July, taking the necessary collecting equipment in his automobile. On the advice of Dr. Hugo P. Bell, of Dalhousie University, Halifax, Nova Scotia, who was consulted for his knowledge of the marine plants of the region, a collecting locality was selected, after investigation of several situations, at Sandy Cove on Digby Neck, Nova Scotia. Digby Neck is a narrow peninsula between the Bay of Fundy and St. Mary's Bay. It proved desirable for collecting because the rocky shore and the absence of extreme currents permitted a luxuriant growth of marine algae, while the tidal range of twenty-eight feet provided a great exposure of vegetation with the characteristic zoning of the plants distinctly evident.

Because of the time and nature of the tides, inclemency of weather, and the physical difficulties of exploring a boldly rocky and precipitous shore, the work at Sandy Cove was not completed until August 14. After leaving the area, a circuitous route was fol-

lowed around the southern and eastern shores of Nova Scotia for the purpose of making comparative observations in other localities. Additional material was collected at Quoddy Head, Maine, a peninsula opposite the Island of Grand Manan in the Bay of Fundy. Quoddy Head is the easternmost point of the United States mainland. The duplicate specimens obtained there were taken with the expectation that certain forms would lend themselves to treatment with preservatives so that the natural material might be used as far as possible in the exhibit.

Mr. Avery sponsored also an expedition to Guatemala, and Mr. Paul C. Standley, Curator of the Herbarium, was placed in charge. He left about the middle of November for Puerto Barrios. Beginning his collecting near Antigua, Curator Standley at the end of the year reported considerable progress made in the short time elapsed since his arrival in the field.

Several field trips, of one to two weeks' duration, were made into Missouri by Dr. Julian A. Steyermark, Assistant Curator of the Herbarium, for the purpose of collecting herbarium specimens and county records for his book, *A Spring Flora of Missouri*, and for a manual of the flora of Missouri, Arkansas, and the adjacent Ozark region. About 20,000 specimens, including duplicates, were gathered, and these will be incorporated in the Herbarium of Field Museum and used for exchanges with other institutions. Included among specimens collected on these trips are a number of varieties and forms new to science, as well as a number of species new to Missouri and not hitherto represented in the Herbarium of Field Museum.

Dr. Francis Drouet, appointed to the staff during the year as Curator of Cryptogamic Botany, has taken advantage of opportunities for collecting algae in the states of Illinois, Indiana, and Missouri, the algal floras of which are as yet very inadequately represented in herbaria. With the assistance of Dr. Paul D. Voth, of the Hull Botanical Laboratory, University of Chicago, and members of the Department of Botany staff at the Museum, 521 specimens of algae were thus added to the cryptogamic herbarium of this institution.

Dr. B. E. Dahlgren, Chief Curator of the Department, made a visit to the lower Amazon in the months of August and September, the time of minimum rainfall in that region. In Belem, Dr. Dahlgren was joined by the veteran botanical explorer, Mr. C. Raymundo Monteiro da Costa, to whose collecting the Museum owes so many of its Amazon plants, particularly those of economic interest. From Santarem, at the junction of the Amazon and Tapajoz rivers, excur-

sions were made to the *terra firma* in the elevated land of the region as well as to the river margins.

Collections were made of palms and other plants and plant products especially desired for the Museum. Particular attention was given to vegetation of the small lakes off the river. These lakes constitute the native habitat of the Victoria regia, and photographs and full collections were secured for use in a habitat group featuring this largest of fresh-water aquatics.

A visit was also made to the new rubber plantation of the Ford Motor Company on the east bank of the Tapajoz River, a few hours by launch from the city of Santarem. Ancient rubber trees of great yield, wild, or planted many years ago, at the margin of the river, give some indication of what may be expected of the carefully planned and tended plantation on the still more favorable level ground of the nearby plateau.

The return trip was made by way of Ceará in order to visit the carnaúba plantation of S. C. Johnson and Son, near Fortaleza. There the Amazon collections were properly dried and packed, arrangements were made for some special collections, and some reliable data were obtained on the rate of growth and the development of the root system of young carnaúba wax palms.

Courtesies offered by Dr. P. Campos Porto, of the Brazilian Instituto de Biologia Vegetal, and in Belem-Pará, Brazil, by the Director of the Museu Goeldi, Dr. Carlos Estevão de Oliveira, as well as by other members of the staff of that small but important institution, are gratefully recorded.

In order to enlarge his field experience in tropical South America, Mr. Llewelyn Williams, Curator of Economic Botany, was given a leave of absence to enter the service of the government of Venezuela where he is at present acting as aid to Dr. Henry Pittier in the botanical exploration of that country.

Aside from expeditions, the research work of the Department of Botany during 1938 continued, in the main, as during the preceding years, but with one notable modification, long overdue: the extension of active work to the non-flowering plants. This has been effected by the addition to the staff of Curator Drouet, and it is expected that under his care a well-organized working herbarium of cryptogams will emerge from the present collection, augmented with such additions as can be provided by purchase, expeditions, and exchanges.

DIORAMA SHOWING ALPINE VEGETATION

The first of a series of dioramas illustrating plant ecology, this exhibit represents a scene above the timberline, at about 12,000 feet, in the Medicine Bow Mountains of eastern Wyoming, with characteristic spring and late summer flowers present simultaneously

Foreground by Emil Sella. Background by Arthur G. Rueckert

Hall of Plant Life (Hall 29)

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Mr. J. Francis Macbride, Associate Curator of the Herbarium, continued his work of searching out and photographing type specimens in European herbaria, especially in the Muséum National d'Histoire Naturelle (Phanérogamie), in Paris. In that institution working quarters and other privileges, and valuable assistance, were generously provided for him through the kindness and interest of the Director, Professor Henri Humbert. During the summer Mr. Macbride returned to Geneva to resume previously uncompleted work, and made visits to some herbaria in Italy.

At the end of 1937 the Museum received 8,587 negatives made under Mr. Macbride's direction during the preceding two years. A shipment of about 1,500 more was made during 1938, but had not arrived at the end of the year. The total number of such negatives of type specimens at hand at the end of 1938 was 34,289, illustrating almost as many species of tropical American plants. They represent, in fact, the majority of species of flowering plants known from South America, and form a study series which for completeness is equaled in few, if any, other institutions.

The practical utility of these photographs is recognized by all botanists who have seen them, and they are constantly in demand for monographic research in both America and Europe. Similar photographic work upon so extensive a scale has never before been undertaken by any botanical institution. Prints from the negatives are made available by the Museum to botanists generally. During the past year requests were received from institutions in North and South America, for 5,417 such prints, which are furnished at cost of production. Many others have been sent in exchange for similar type photographs and specimens desired by Field Museum.

Collections received for determination and study from widely scattered sources have occupied fully the time of the Herbarium staff. Care of the Herbarium has been greatly facilitated by the employment throughout 1938 of a large number of workers supplied by the Works Progress Administration of the federal government. Although direction of the WPA workers has consumed much of the time of the staff, this is justified by the results accomplished.

There have been mounted and added to the Herbarium 40,000 sheets of specimens and 4,126 photographs. More than 11,959 printed or typewritten descriptions of species of plants have also been added. These figures indicate rapid growth, and compare well with similar data for other large herbaria of the world. The total number of specimens now in the Herbarium exceeds 939,000. All

work of mounting has been brought up to date, and current collections are handled promptly. The mounted specimens are distributed into the permanent study collections within a few weeks of receipt, making new accessions quickly available for consultation.

Progress has been made at cleaning and repairing sheets in the Herbarium. Several persons were engaged in this work during the year, and thereby greatly improved the appearance of the specimens. Many hundreds of new covers for genera and species were written, and data upon the sheets were corrected and amplified.

In the cryptogamic herbarium a small beginning has been made in the long and tedious work of renovating the packaging of the specimens already filed in the Herbarium. For this, and for the task of mounting and filing specimens, two WPA assistants have given valuable service during the period since September.

Considerable work was accomplished in the organization, with consequent reduction of bulk, of the large quantities of palm material on hand for incorporation into the Herbarium.

The rearrangement, according to recent literature, of certain groups of plants was started on the grasses, in which group it has now been completed. Similar work has been begun on the large genus *Carex*, and will be extended eventually to all the plants in the Herbarium. The nomenclature of North American plants is being brought up to date first.

More than 15,000 specimens of plants were submitted to the Department for study and determination. These were principally from tropical America, Mexico, and the United States, but represented various other regions as well. After determinations had been made, the larger portion of this material was retained for preservation in the Museum, but part was returned to the senders. Named, but not retained for the collections, were many specimens of plants of the Chicago region forwarded to the Museum by students, teachers, and visitors. The most varied botanical matters were the subjects of hundreds of inquiries answered by mail and telephone.

Many visiting botanists, not only from the Chicago region but from near and remote parts of the United States, and also from foreign countries, have consulted the Herbarium during 1938. Frequent use of it has been made by scientists and students from the several large universities in or near Chicago, and elsewhere in Illinois or neighboring states. The fact that it is the only large herbarium within a radius of several hundred miles has intensified

its use. Naturally, it is utilized constantly as a source of information, and as the basis of original studies by the Museum's staff botanists.

Botanical publications of 1938 were concerned chiefly with the flora of tropical America. Of Volume XIII, *Flora of Peru*, by Associate Curator J. Francis Macbride, one part was issued. This treats of the families from Berberidaceae to Connaraceae, inclusive. Accounts of certain families were contributed by Dr. R. E. Fries, of Stockholm, Sweden, Mr. Albert C. Smith, of New York, and Mr. Paul C. Standley and Dr. Julian A. Steyermark of the Museum staff. Except for the index, Volume XVIII, *Flora of Costa Rica*, by Curator Standley, has been completed. The two parts published during 1938 consist of 788 pages.

The only volume of the Botanical Series completed in 1938 is the two parts of Volume XIX, *The American Species of Passifloraceae*, by Mr. Ellsworth P. Killip, Associate Curator, Division of Plants, United States National Museum. This publication is based upon the many years of monographic research devoted to this group by Mr. Killip, and represents an exhaustive study of material from the leading herbaria of the world. Of Volume XVII, Nos. 4 and 5 were published during 1938. They are: *A Contribution to the Flora of Honduras*, by Dr. T. G. Yuncker, Professor of Botany, DePauw University, and *Studies of the American Flora*, by Assistant Curator Steyermark, containing primarily descriptions of new species of Mexican and tropical American plants.

One addition to the Museum's series of Botanical Leaflets was made during 1938. Following the leaflet *Tea*, by Assistant Curator Llewelyn Williams, issued last year, No. 22, *Coffee*, by Chief Curator B. E. Dahlgren, deals briefly with this commercial plant commodity in all its aspects.

Many abstracts and reviews of current literature relating to woody plants of the tropics were prepared by members of the Department staff for the periodical *Tropical Woods*, edited and published at Yale University by Professor Samuel J. Record, Field Museum's Research Associate in Wood Technology.

The staff also contributed many articles to *Field Museum News*, and furnished data for various newspaper articles. Assistant Curator Steyermark published during the year in various periodicals nine articles on plants of the United States, chiefly those of Missouri.

Various manuscripts by members of the Department staff, research associates, and assistants, have been prepared for publication in 1939, and several of these are already in press.

Curator Drouet, at the annual meeting of the Botanical Society of America, at Richmond, Virginia, on December 30, read a résumé of his manuscript on *Francis Wolle's Filamentous Myxophyceae*, a consideration of the specimens and publications of one of the early American phycologists.

ACCESSIONS—BOTANY

There were received during 1938 in the Department of Botany 390 accessions, comprising 50,823 items. The total number of accessions received during 1938 was almost a third greater than in 1937, but the total number of specimens included in them was slightly smaller. Included in the accessions were specimens for the exhibits, the herbarium, and the wood and economic collections. Classified by sources, 13,586 came as gifts, 21,483 were acquired in exchange, 9,251 were purchased, 2,377 were obtained by Museum expeditions, and the remainder, consisting chiefly of about 4,000 photographic prints, were received from the Museum's Division of Photography.

Of the total receipts, items for the Herbarium amounted to more than 50,000, including plant specimens, photographs, and typed descriptions. A large amount of exceptionally valuable herbarium material was received through exchange. First in importance was a sending of 3,358 specimens from the Muséum National d'Histoire Naturelle (Phanérogamie), Paris, transmitted by Professor Henri Humbert, Director. This series consisted in major part of old collections from Brazil, representing type material of several hundred species discovered by early collectors, and not represented previously in American herbaria. Another exchange of similarly valuable material, amounting to 1,085 specimens, chiefly from South America, was received from the Conservatoire et Jardin Botaniques, Geneva, through the courtesy of the Director, Dr. B. P. G. Hochreutiner.

Other important receipts of specimens through exchange included 350 specimens of flowering plants of Poland, from the Musée Physiographique de l'Académie Polonaise des Sciences, Cracow, Poland; 345 specimens from Panama and Costa Rica, from the Missouri Botanical Garden Herbarium, St. Louis; 260 specimens of Hawaiian plants, from Dr. F. Raymond Fosberg, Philadelphia; 904 specimens of plants, chiefly of the state of Washington and the Aleutian Islands, from Mr. Walter J. Eyerdam, Seattle; 2,030 plants of California and Nevada, representing material exceptionally well prepared and from a little known region, from Mr. Ira W. Clokey, South Pasadena, California; 1,988 specimens of plants of Guatemala and Mexico from

the Arnold Arboretum, Jamaica Plain, Massachusetts; 321 specimens of plants of the United States from the Academy of Natural Sciences, Philadelphia; 237 specimens of plants of the central United States from Dr. F. J. Hermann, Bureau of Plant Industry, Washington, D.C.; 229 specimens of North Dakota plants from the Department of Botany, North Dakota Agricultural College at Fargo; 336 specimens of California and Oregon plants from Dudley Herbarium, Stanford University, California; 706 specimens of plants, chiefly of central and South America, from the United States National Museum, Washington, D.C.; 707 specimens of flowering plants, chiefly of Central and South America, from the New York Botanical Garden Herbarium; 606 specimens of plants, chiefly of Central America and Mexico, from the Herbarium of the University of Michigan, Ann Arbor; 386 specimens of Argentinian plants from Instituto de Botánico Darwinion, San Isidro, Argentina; 211 specimens of Argentinian plants from Universidad de La Plata, Instituto del Museo, La Plata, Argentina; 307 specimens of Kansas plants from Kansas State Teachers College, Hays, Kansas; and 100 specimens of Costa Rican plants from Mr. Austin Smith, Zarcero, Costa Rica.

Of the 6,600 cryptogams added, chiefly in the last three months of the year, 1,962 came by way of exchange. There were 389 specimens from Naturhistoriska Riksmuseet, Stockholm, Sweden; 938 specimens from the Farlow Herbarium of Harvard University; 326 from the herbarium of William Randolph Taylor; 470 algae, mosses and hepatics from the New York Botanical Garden; 45 mosses and hepatics from the Department of Plant Pathology, Florida Agricultural Experiment Station at Gainesville; 41 specimens from the herbarium of J. C. Strickland; 4 from George H. Giles; 17 from Harold C. Bold; and 10 from Joan C. Bader.

Among the numerous gifts of herbarium material accessioned during the year are many of outstanding value, particularly from tropical America and Mexico. Among these may be mentioned 557 Honduras plants from Professor T. G. Yuncker, Greencastle, Indiana; 262 specimens of Peruvian plants, from Dr. César Vargas, Cuzco, Peru; 537 specimens of plants, chiefly of Missouri, from Dr. Julian A. Steyermark, of Field Museum; 209 specimens of Peruvian plants from Professor J. Soukup, Puno, Peru; 220 specimens of Uruguay plants, from Professor Bernardo Rosengurtt, Montevideo, Uruguay; 338 specimens of Costa Rican plants, from Museo Nacional, San José, Costa Rica, through its Director, Professor Juvenal Valerio Rodriguez; 292 specimens of plants of Ecuador and Puerto Rico,

from Mr. B. A. Krukoff, New York; 328 specimens of Mexican plants, from Mr. Irving W. Knobloch, San Juanito, Chihuahua, Mexico; 645 specimens of Mexican plants from Professor L. A. Kenoyer, Kalamazoo, Michigan; 265 specimens of Guatemalan plants from Dr. John R. Johnston, Chimaltenango, Guatemala; 344 specimens of Brazilian plants, from Dr. August Ginzberger, Vienna; 782 specimens of Brazilian plants, from Dr. Francis Drouet, of Field Museum; and 427 specimens of Costa Rican plants from Centro Nacional de Agricultura, San Pedro Montes de Oca, Costa Rica.

The Department of Botany of the University of Texas, through Professor Benjamin C. Tharp, presented 720 specimens, chiefly from northeastern Mexico, most of which were named at Field Museum. Professor Samuel J. Record, of the Yale School of Forestry, New Haven, Connecticut, continued his practice of former years, by forwarding 198 specimens representing woody plants of Central and South America. The year's largest single gift consisted of 2,127 specimens of Brazilian plants from Jardim Botanico de Bello Horizonte, in Brazil. This material consists of beautifully prepared specimens collected by Professor Mello Barreto, and includes many species previously not in the Herbarium of Field Museum.

Other gifts include 220 specimens of United States plants, from Mr. Hermann C. Benke, Chicago; 139 specimens of Colombian plants, from Rev. Brother H. Daniel, Medellín, Colombia; 184 specimens of Colombian plants, from Rev. Brother Elias, Barranquilla, Colombia; 126 specimens of Missouri plants, from Mr. George Moore, Lebanon, Missouri; 306 specimens of plants, chiefly from Hawaii, from Dr. E. E. Sherff, Chicago; and 208 specimens of Mexican plants, from Mr. Howard Scott Gentry, Tucson, Arizona.

Of 1,686 cryptogamic plants sent as gifts since September, 1938, the largest collections received consisted of 1,186 specimens from Missouri, sent by Mrs. Cora Shoop Steyermark, Chicago; 318 specimens of algae from the herbarium of Dr. Francis Drouet, Chicago, and 100 specimens of mosses of Iowa from Dr. H. S. Conard, Grinnell, Iowa. Other material, chiefly of Myxophyceae, sent to the Curator of Cryptogamic Botany for determination, and retained for the Herbarium, includes 96 specimens from Burma; 29 from China, and about 200 from various parts of North and South America.

Of specimens purchased, the most important acquisition for the cryptogamic collections was the herbarium of Mr. H. Royers, a German phycologist. It contains 2,000 or more specimens of algae from Europe, collected principally by botanists of the nineteenth century.

MERCHANTS OF ST. MALO AT YEMEN

A historic moment in world commerce—the first visit of vessels from western Europe to buy coffee directly from the Arabs

One of a series of mural paintings by Julius Moessel

Hall of Food Plants (Hall 25)

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

A considerable series of these specimens is reported to have been studied by Gomont, and by Bornet and Flahault, monographers of the filamentous Myxophyceae. Many specimens from Rabenhorst, *Die Algen Europas*, are included. This herbarium, purchased early in December, has not yet been sorted and prepared for filing.

Several sets of published exsiccatae were also added through purchase, the largest of these being Tilden, *American Algae*, with 650 specimens.

In August, 1938, the Museum received on loan the personal herbarium of Curator Drouet, containing 3,263 specimens of algae on 2,760 herbarium sheets. These have been made available for reference. This herbarium contains, besides Dr. Drouet's own collections from North America and Brazil during the period 1928–38, a large series of specimens collected and studied by many early and contemporary American and European botanists.

CATALOGUING, INVENTORYING AND LABELING—BOTANY

During 1938 there were distributed, to institutions and individuals in North and South America, and Europe, eighty-one lots of material, including 12,888 herbarium specimens, wood specimens, photographs, and typed descriptions of new species. Eighty-six lots of specimens were lent for study, and eighty-six lots were received on loan for study or determination.

Records of botanical accessions, loans, and exchanges have been carefully kept by Miss Edith Vincent, Librarian of the Department. The geographical and collectors' indexes have been kept up to date, as has been the card catalogue of economic collections, with the aid of federal Works Progress Administration workers. Many WPA workers rendered great assistance in reorganization and arrangement of reference and exchange material, herbarium and economic specimens, and woods. They also performed much needed typing. More than 205,000 catalogue cards were written by them for permanent and temporary files, and many thousands of herbarium and wood collection labels were prepared.

Labels have been prepared, printed, and installed for all current additions to the exhibits, and many old ones have been revised.

The only collections of the Department requiring a thorough check-over during the year were those of non-vascular cryptogams acquired in the course of years, mostly without having had the attention of a specialist.

Upon the assumption of his duties as Curator of Cryptogamic Botany, a general inventory of these became Dr. Francis Drouet's first concern. As a matter of record his report is quoted as follows: "Until September 1, 1938, specimens of cryptogams had accumulated in the Herbarium of the Museum in a rather desultory fashion. The collection had attained sizable proportions; it lacked much, however, in both organization and content of historical collections, to make it as useful to botanists as is the phanerogamic herbarium. Its chief constituents were the herbaria of: E. T. and S. A. Harper, principally of North American fungi; W. S. Moffatt, entirely of North American fungi; L. J. Wahlstedt, chiefly charophytes of the world; Ed. Jeanpert, principally of mosses and hepatics; Arthur Schott, of algae; Mrs. E. (M. S.) Snyder, of southern California marine algae; and portions of the private herbaria of Elihu Hall, M. S. Bebb, and H. N. Patterson.

"A survey of the representation of published sets of exsiccatae has yet been attempted only among the algae. In this group there were present the full set of 2,350 specimens of North American algae of Collins, Holden and Setchell, and parts (150 specimens) of Areschoug.

"Since September 1, 1938, when the Curator of Cryptogamic Botany assumed his duties at the Museum, some other sets of published exsiccatae have been added, viz., Tilden, *American Algae*, portions of Wagner, *Cryptogamen Herbarium*, and of Wittrock and Nordstedt. New additions, totaling 6,600 specimens, are included in the account of botanical accessions elsewhere in this report.

"It is the desire of the Curator to build a large and useful cryptogamic herbarium at Field Museum. The collection should be enlarged by the addition of material of historic value and of new specimens from the Americas and other parts of the world. Although the species of cryptogams are generally considered to be of wide distribution over the face of the earth, one cannot hope to accumulate a herbarium complete in itself, with material representing copiously each and every species from its entire range. It is hoped, however, that large collections will be accumulated from both North and South America, and thus, by co-operation with other institutions, to make available for future researches a fairly complete representation of the flora of the world. The purchase of specimens, and expeditions into regions little-explored for cryptogams, will be necessary for the realization of such an aim."

INSTALLATIONS AND REARRANGEMENTS—BOTANY

The most important addition to the botanical exhibits resulted from completion, early in the year, of the plant habitat group representing an alpine meadow described in the 1937 Report. This was completed in February, 1938. A photograph of it is reproduced in this Report (Plate XXVIII, opposite page 366). The exhibit was prepared under the supervision of Mr. Emil Sella, of the Department Laboratories' staff, and occupied the time of several workers for more than two years. The necessary field studies and botanical collections were made in Wyoming by Mr. Sella. The second group planned for the Hall of Plant Life (Hall 29) is well advanced, and may be completed in the spring of 1939. It will represent the spring flora of this part of the world in a typical woodland scene such as formerly might have been found almost anywhere on the present site of Chicago, and still survives in a few favored or well-guarded localities near the city. In contrast with the low growing and relatively meager carpet of arctic vegetation shown at its moment of greatest perfection in the alpine meadow, that of the medium temperate local environment represented in this group will appear truly luxuriant and many-dimensional, with its mingling of trees, shrubs, and flowering herbs. The large amount of work required to produce it has been in progress for more than a year, occupying, under the supervision of Mr. Sella, the efforts of selected workers furnished by the federal Works Progress Administration who, in the course of time, have become sufficiently skilled to prepare the bulk of material required. The more exacting portions of the task have been performed by Mr. Sella, and by Mr. Milton Copulos, also of the Museum's own staff. The background was painted by Staff Artist Arthur G. Rueckert from photographs taken by Mr. Sella, and a preliminary sketch made by the late Charles A. Corwin, former Staff Artist.

As mentioned in the section of this Report on Expeditions, material has been collected for two further botanical habitat groups for the north and south ends of the Hall of Plant Life, viz., one of marine algae of the inter-tidal zone of the northern Atlantic shore, and the other of tropical fresh-water aquatics. Some preliminary work has been done on both of these.

While work on these groups has occupied most of the time and attention of the Department's staff of preparators, other exhibits in the Hall of Plant Life have not been neglected. To the still inadequate representation of the rose family, the botanical source of

most of our fruits and berries of the temperate zone, there has been added one more example, a reproduction of a branch of Bartlett pear. This is the work of Mr. Copulos. From the standpoint of museum technique this reproduction is of special interest because of the use of a new plastic known as *vinylite*, employed as material for leaves.

An interesting addition to the orchids in this hall was made with the installation, in a separate floor case, of a reproduction of the striking epiphytic bee swarm orchid, *Cyrtopodium punctatum*, collected for the purpose by the Chief Curator several years ago in southeastern Brazil. This orchid, which grows as well on bare rock as in the tree-tops, stands about five feet in height. It has large clusters of yellow flowers with brown spots that are responsible for its common name. Of special interest are its palmlike foliage, long thick leaf stems which also function as storage organs for water, and its mass of aerial roots at the base. This exhibit, completed early in the year, is the work of Mr. John R. Millar and Mr. Copulos, with some assistance from WPA craftsmen.

The exhibits in Hall 25 received a desirable addition in a reproduction of a fruiting specimen of the nipa palm, an apparently stemless palm inhabiting brackish water swamps of the East Indies, growing in solid formations and scattering its water-borne fruits over huge areas. Because of the plant's large size, only the basal part of its leaves could be shown. The material for this exhibit was secured from specimens growing in the Botanic Gardens of Georgetown, by the Stanley Field British Guiana Expedition of 1922, which furnished so much exhibition material for the Department.

Some improvements of other exhibits in Hall 25 were made by the reinstallation of the cane sugar case (Case 22), and of the case containing the carnaúba and Pritchardia palms (Case 7). The acquisition of new material, recently collected and prepared, made these improvements possible.

A fine fruiting spadix of the American oil palm, collected last year in Panama by one of the Department's Research Associates, Professor A. C. Noé, was brought to the Museum preserved in formalin. Satisfactorily dried, it has been installed in conjunction with its more important relative, the African oil palm, which was already represented in the exhibits.

Preparation of a diorama showing a cassava starch mill, begun last year, has made some progress in the hands of a WPA preparator to whom it was entrusted.

The series of transparencies in the windows of Hall 25 has been extended until there now remains only a single space unfilled, and this has been reserved for pictures relating to sorghum or Kaffir corn.

A few excellent photographs for use as transparencies have been found by searching the files of the *National Geographic Magazine*, which has kindly lent negatives on request. Western railroads, especially the Chicago, Milwaukee, St. Paul and Pacific, have supplied the largest number of those used in connection with the small grains. The large film positives made from them have been produced by the Museum's Division of Photography, and colored by Mr. Thomas Jelinek.

Some transparencies have been made also for the windows in Charles F. Millspaugh Hall of North American Woods (Hall 26) from photographs illustrating American trees, forests, forestry, and phases of the lumber industry and of forest conservation. Here the Museum's own files have furnished some subjects, and others have been lent by western lumbermen's associations and by the United States Forest Service.

In the Hall of Foreign Woods (Hall 27) one case was installed. It contains four planks from New Zealand, the gift of Mr. O. A. Oakes, of Evanston, Illinois.

The most important new undertaking begun during the year to further improve the botanical exhibits is a series of murals in Hall 25, paralleling the food plant exhibits which form the theme. The murals will deal with the human activities which grow out of man's use of plants for food; the primitive gathering, hoeing and planting, plowing, sowing, and other steps in development of crop production; processes connected with the preparation of staple vegetable foods such as threshing, milling and baking, sugar production and wine-making; and transportation, trade, and distribution. In short, they will condense in pictorial form the story of man's use of food plants. Fortunately, it has been possible to entrust this task to Mr. Julius A. Moessel, as able and experienced a mural painter as could be desired. Plate XXIX, opposite page 372, of this Report, shows one of two paintings which are already in place on the north wall of Hall 25. This depicts a historic moment in European commerce in food stuffs—merchants of St. Malo buying coffee in Arabia. The other one so far installed shows a Mexican market scene. Two other subjects were almost completed at the end of the year.

An important addition was made to the Herbarium during 1938 by the purchase and installation of eighteen new metal herbarium

cases, serving in part for the cryptogamic herbarium, in part to accommodate expansion in the general herbarium of flowering plants, and finally to replace old wooden cases which were still in use.

DEPARTMENT OF GEOLOGY

EXPEDITIONS AND RESEARCH

An expedition, sponsored by Mr. Sewell L. Avery, a Trustee of the Museum, and conducted by Mr. Sharat K. Roy, Curator of Geology, continued the work begun last year of collecting specimens for the enlarged collection illustrating structural and dynamic geology now being organized for Clarence Buckingham Hall (Hall 35). The expedition spent eleven weeks in the field in northern Colorado, the Black Hills of South Dakota, and in some eastern states as well. Although the main purpose of the expedition was to collect specimens relating to structural and dynamic geology, minerals of high quality, when available in the localities visited, were also collected, and photographs of unusual geological features were secured.

During the first six weeks, devoted to collecting in the Boulder region of northern Colorado and the Black Hills of South Dakota, eleven localities were visited, and ninety-six specimens were collected. In the last five weeks field work was shifted to New York, Connecticut, Vermont, and Rhode Island, where twelve localities were visited and seventy-eight specimens collected. The 174 specimens collected by the expedition include dikes (in sedimentary and igneous rocks), folds (synclinal, anticlinal, isoclinal, similar, recumbent, etc.), flow structures, faults (normal and reverse), slickensides, fault breccia, breccia, tension joints, progressive weathering, raindrops, ripple marks, and various minerals. Many of the specimens represent features which are entirely new to the Museum's collection, and fill to a large extent the gap that has existed in the collections of the hall devoted to physical geology. But the present enlarged collection, greatly superior as it is to the display of former years, cannot be regarded as an adequate representation of physical geology. Some important phases of the subject can be illustrated only if persistent search for further specimens is conducted in the field.

Dr. Albert J. Walcott, working in the Department under a special arrangement, spent a month in Washington, Oregon, and Wyoming, collecting cryptocrystalline quartzes for a new exhibit of ornamental and semi-precious quartzes in preparation for Hall 34. The expedition collected 193 specimens, mostly of the ornamental and semi-precious cryptocrystalline quartzes, and obtained 206 others, many

of them polished, as gifts from local collectors. Much of the success of the expedition was due to the enthusiastic co-operation extended by local collectors, and especially to the valued assistance of Dr. H. C. Dake, Editor of *The Mineralogist*. The specimens secured, when added to those which were already in the collections, provide ample material for the new exhibit, although it should be further extended by addition of material from other parts of the world.

There were no expeditions to collect vertebrate fossils during 1938. It has been increasingly evident for some years that the full value of the Museum's extensive collection of South American fossil mammals and birds could be developed only after comparisons with similar specimens in European and eastern museums; and that, if such comparisons were made, studies based mainly on the large collection here would have increased scientific significance. For this reason, Mr. Bryan Patterson, Assistant Curator of Paleontology, working under a grant-in-aid for travel made by the American Association of Museums from a fund provided by the Carnegie Corporation, spent two months in Europe making the necessary studies. During July he studied the South American fossil mammals at the Muséum d'Histoire Naturelle, Paris, and in August he studied South American fossil birds in the British Museum (Natural History), London. Returning, he spent two weeks at the American Museum of Natural History, New York, and at Princeton University, studying fossil birds. Results from these studies admirably supplement those obtained from work on Field Museum's collections. The synonymy of many genera and species can now be straightened out. The morphology of various forms is better understood, as well as the range of variation of a number of them.

Research in vertebrate paleontology continued steadily throughout the year. It was based on material accumulated from past expeditions, and on specimens included in recent important gifts. The study and description of Miocene carnivores in the Museum collections by Mr. Elmer S. Riggs, Curator of Paleontology, is nearly completed. A study of some Notoungulate brain casts by Assistant Curator Patterson, completed in 1937, appeared as a Museum publication at the beginning of 1938. A paper on *Animal Remains from the Alishar Hüyuk in Central Anatolia*, by the same writer, was published by the Oriental Institute, University of Chicago, as part of its Publications, Vol. 30, *The Alishar Hüyuk, Seasons of 1930–32*. A paper by Mr. Paul McGrew, Assistant in Paleontology, on *Dental Morphology of the Procyonidae with a Description of*

Cynarctoides, Gen. nov., appeared as a Museum publication. It is based on specimens presented by Mr. McGrew.

Mr. Edwin C. Galbreath, of Ashmore, Illinois, contributed a paper on *Post-Glacial Fossil Vertebrates from East-Central Illinois*, which was published in the Geological Series of the Museum. Two new Paleocene crocodiles collected in 1937 were described by Curator Karl P. Schmidt of the Department of Zoology, in a Museum publication issued as No. 21 of Volume VI, and entitled *New Crocodilians from the Upper Paleocene of Western Colorado.*

Curator Roy prepared a paper, *Additional Notes on the Grinnell Glacier*, published at the end of the year. It brings his earlier paper on this subject up to date by incorporating discoveries made by recent expeditions under the leadership of Commander Donald B. MacMillan.

Dr. Walcott has begun a research on the constitution, classification, and nomenclature of the cryptocrystalline quartzes. This is to proceed in conjunction with his preparation of the new collection illustrating the subject.

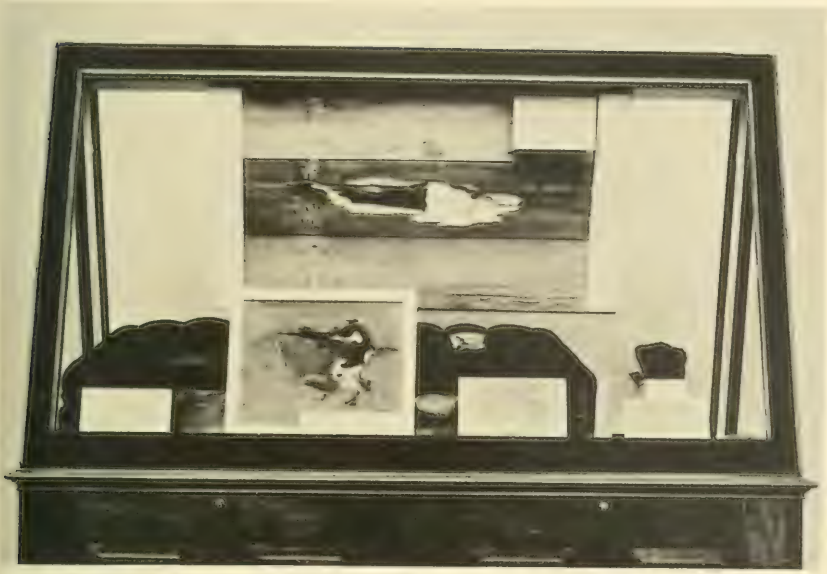
Other demands on the time of Chief Curator Henry W. Nichols made it necessary for him to confine work in the chemical laboratory to routine tests and analyses immediately needed for identification of specimens or preparation of labels. Four bronzes were restored by the Fink electrolytic process for the Department of Anthropology, and 882 gallons of alcohol were purified for the Department of Zoology.

ACCESSIONS—GEOLOGY

The Department of Geology recorded during the year eighty-five accessions, an increase of nearly one-quarter over the number in the preceding year. These accessions added 4,559 specimens, nearly four times as many as were received in 1937, to the collections. Of these specimens, 3,883 were gifts, 248 were obtained by exchange, 404 came from expeditions and 24 were purchased.

The most important accession of the year was the Benld (Illinois) meteorite with material showing the damage it caused when it fell. This unusual and important meteorite was secured through the efforts of Messrs. Ben Hur Wilson and Frank M. Preucil, Jr., of the Joliet (Illinois) Astronomical Society, who undertook the negotiations which resulted in its purchase.

The *Chicago Tribune* presented a large relief map of North America, fifteen feet long and ten feet wide. It has been placed on the west wall of Hall 36.



THE BENLD METEORITE (at right) WITH DAMAGED PARTS OF AUTOMOBILE AND GARAGE
Hall 34

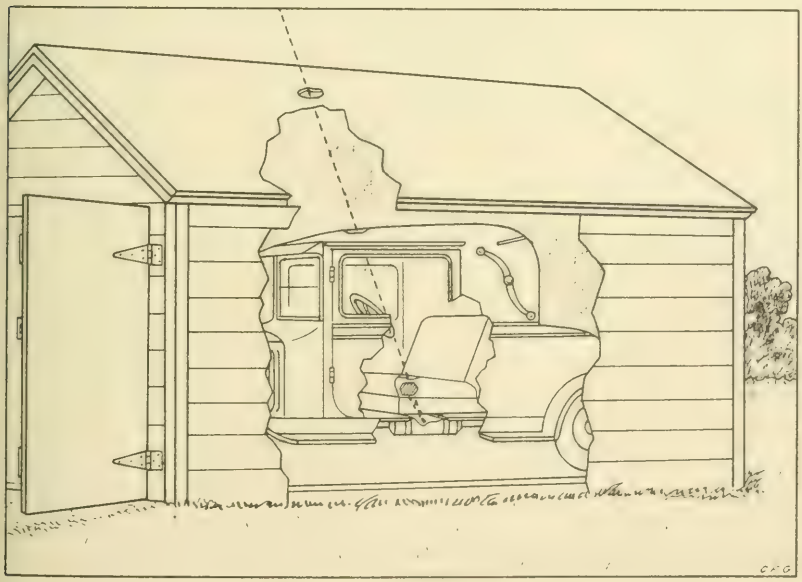


DIAGRAM SHOWING PATH OF BENLD METEORITE THROUGH GARAGE AND CAR

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

A gift of forty-four pieces of jewelry from the Estate of Mrs. Carrie Ryerson permits an important enlargement of the gem collections in H. N. Higinbotham Hall (Hall 31). Another gift of more than usual interest and beauty is a 3.97-carat beryllonite presented by Mrs. Joan A. Chalmers, and the late William J. Chalmers, former Trustee of the Museum.

Mr. William B. Pitts, of Sunnyvale, California, presented a beautiful plaque of transparent sections of chiastolite crystals displaying the characteristic strange dark crosses in an unusually effective way. He also added a number of specimens to his former gifts of "orbicular jasper."

The most important additions to the mineral collection were the cryptocrystalline quartzes obtained by the Expedition to the Pacific Northwest. This expedition secured, in addition to its collected specimens, gifts from local amateur collectors of 206 specimens, many of them cut and polished. Among those who contributed were: *The Mineralogist*, a magazine, and its editor, Dr. H. C. Dake, Mr. Jack Barry, Mr. A. R. Hine, Dr. E. W. Lazell, Mr. Walter Nelson, Mr. Peter Peterson, Mr. J. Lewis Renton, Mr. A. J. Schneider, Mr. Ray Schneider, Smith's Agate Shop, and Mr. F. S. Young, all of Portland, Oregon; Mr. P. L. Forbes and Mr. M. T. Green, of Bend, Oregon; Mr. J. R. Wharton, of Roseburg, Oregon; Mr. W. A. Brox, of Rawlins, Wyoming, and Mr. Paul Weiss, of Denver, Colorado.

Mr. Lloyd Curtis, of Lander, Wyoming, presented eleven specimens of sapphire with damourite, and three jades from a newly opened deposit.

Twelve "glacial gems"—polished cabochons cut from ordinary pebbles from local gravels—were received as a gift from Mr. William C. McKinley, of Peoria, Illinois. They demonstrate the beauty that can be given many of our ordinary stones by suitable treatment. Mr. J. O. Shead, of Norman, Oklahoma, added nine to the Museum's collection of barite roses. Mr. Frank Von Drasek, of Cicero, Illinois, added sixty-seven minerals to his gifts of former years. Miss Ann Trevett, of Casper, Wyoming, presented a specimen of the rare mineral uranophane. Another rare mineral, gillespite, was the gift of Miss Bertha Gordon, of Porterville, California, who also presented four photographs of geological features in Death Valley.

Mr. S. M. Snyder, of Metamora, Illinois, presented a petroleum-filled geode, and Mr. Edward M. Brigham of Battle Creek, Michigan, gave seven blue agates. Excellent examples of asterism in phlogopite were presented by Mr. Hugh S. Spence, of Ottawa, Canada.

Other additions to the mineral collection came as gifts from Mr. Clark W. Walter, Mr. Harry Changnon, and Mrs. Beatrice Norden, all of Chicago; Mr. R. G. Slocom, of Riverside, Illinois; The Asphalt Shingle and Roofing Institute, of Chicago, and Mr. H. V. Schiefer, of Cleveland Heights, Ohio.

A fine gem quality crystal of aquamarine, and two gems cut from sphalerite, were obtained for the gem collection by exchange. The meteorite collection was enlarged by the purchase of fourteen meteorites. Six tectites and four meteorites were obtained by exchanges.

The principal acquisitions for the physical geology collections were the 174 carefully selected specimens collected by a Museum expedition sponsored by Mr. Sewell Avery. The Marquette Geologists' Association, a Chicago society of amateur geologists, collected for the Museum twenty-three specimens, mostly glacial striae, needed to fill gaps in the collection. This gift was supplemented by Mr. William E. Menzel, of the same association, with a collection of twenty-eight specimens.

Six European rocks and sands were the gift of Dr. Henry Field, of the Museum staff. A collection of six siderite concretions which have peculiar features, worthy of much study, was presented by Wheaton College and Professor L. A. Higley, of Wheaton, Illinois. Gifts of other specimens illustrating physical geology came from Mrs. Keith Griswold, of Evanston, Illinois, Mr. John W. Jennings, of Eureka Springs, Arkansas, Mr. Donald C. Boardman, of Fillmore, California, and Mr. C. W. McLeod, of Michigan City, Indiana.

A large slab of the highly colored and patterned calico rock from Calico Canyon, South Dakota, was obtained by an exchange with Wheaton College. It has been given a prominent position among the exhibits in Clarence Buckingham Hall (Hall 35).

Accessions to the economic collections were comparatively few. One consisted of a collection of minerals used as medicine in Arabia, obtained by the Field Museum Anthropological Expedition to the Near East (1934). Gypsums and diatomite, collected in Nova Scotia by a botanical expedition of 1938, sponsored by Mr. Sewell Avery, formed another addition. The medicines are interesting as illustrations of strange therapeutics practiced in primitive times and by primitive peoples. Of similar interest is a geophagist's or clay-eater's clay, presented by Mr. W. O. Swett, of Chicago. This clay is eaten by Indians in Oaxaca, Mexico. Coals and oil shales from mines in Fu-shun, Manchukuo, were presented by Mr. Tokumatsu Ito, of the Museum staff. They represent the product of one of the

most important mines of western Asia. The Texas Planning Board, and the University of Texas, Austin, presented examples of the newly developed marbles and granites of that state.

A valuable gift of fossil plants collected near Rifle Gap, Colorado, came from Messrs. William B. Hilton and G. Bradley Harris of nearby Rifle. This collection demonstrates the Paleocene age of the beds in which the specimens occur, and may help in correlating mammal and plant sequences of the Paleocene. Other gifts of invertebrate fossils came from Messrs. F. C. Cleveland, of Chicago, Fred E. Gray, of Oak Forest, Illinois, Duncan MacMillan, of Chicago, R. A. Yeager, of Kankakee, Illinois, C. A. Quinn, of Ainsworth, Nebraska, and J. K. Strecker, Jr., of Waco, Texas. A collection of Miocene fossil shells was obtained by exchange with Princeton University.

Two important additions were made to the collection of vertebrate fossils. One, the gift of Mr. Elmer S. Riggs, of the Department staff, is a collection of forty-six specimens of fossil mammals from the Miocene and Pliocene of Devil's Gulch, Nebraska, which includes three skulls of fossil horses, one of a fossil camel, one of a canid, and two of procyanids which are new to the collections. The other, a gift from Mr. Paul O. McGrew, also of the Department staff, is a collection of nine skulls, and some 3,000 jaws and teeth, of micro-mammals from the White River formation of Nebraska. This, the largest collection of the kind known, includes important specimens and new species.

Other gifts of vertebrate fossils came from Messrs. Charles H. Flory, Bellingham, Washington, Alfred A. Look, Grand Junction, Colorado, George W. Bowen, Chicago, C. G. Colyer, Sheridan, Wyoming, and C. H. McPherson, Pana, Illinois.

By exchange with the Museo Argentino de Ciencias Naturales, Buenos Aires, Argentina, came five casts of holotypes of five South American fossil birds. A cast of the skeleton of the great Eocene bird *Diatryma* was received through an exchange with the American Museum of Natural History, New York. The skull and jaws of a musteline were obtained by an exchange with the Peabody Museum, of Yale University, and two other mustelines, two rodents, and two carnivores came through an exchange with the Dyche Museum, of the University of Kansas.

CATALOGUING, INVENTORYING AND LABELING—GEOLOGY

In the Department catalogues, which now comprise twenty-eight volumes, there were 4,381 new entries. These, added to previous

entries, make a total of 201,559. With the exception of such vertebrate fossils as require much preparation and study, all specimens received during the year have been catalogued. The classified card catalogues of the meteorites and of photographs have been kept up to date, and the classified minerals and rock card catalogues have been completed.

In vertebrate paleontology, the stratigraphic card index, begun during the summer of 1937, was completed early in the year, and the systematic specimen catalogue was brought up to date. These two catalogues have been of great value in providing convenient and complete information regarding the specimens. The bibliographic index of the working library of vertebrate paleontology has been brought up to date by the typing of 610 cards. The bibliography of South American vertebrate fossils, prepared by Assistant Curator Patterson, has likewise been kept up to date.

Preparation of a classified catalogue of the invertebrate fossils continued. Owing to previous bad over-crowding in storage, these specimens and their labels were found to be in poor order, and it became necessary to compare each of the thousands of specimens with the records in the accession books. This has been done for all specimens up to the close of Pennsylvanian time. Catalogue cards have now been typed for all specimens. As the collection contains many duplicates, the 8,262 cards typed represent the handling of some 55,000 specimens. These cards are now placed in the trays with the specimens, and will be checked for errors before they are filed. The file will be in two sections, one with biological, the other with stratigraphic arrangement.

Copy was prepared for 1,959 specimen labels, and all labels received from the Division of Printing were installed in the cases. To the Department albums 361 labeled prints of photographs were added. They now contain 9,085 prints. One hundred and five United States Geological Survey maps were received, labeled, and filed, bringing the number now available to 4,624. Nearly all of the work of preparing these classified records was performed by men and women assigned to the Department by the federal Works Progress Administration. Without their aid the work could not have been undertaken. The work of the regular staff has been greatly facilitated by the WPA assistance, and more has been accomplished than would otherwise have been possible either in the preparation and improvement of exhibits, or in research.

INSTALLATIONS AND REARRANGEMENTS—GEOLOGY

The principal addition to the collections in Hall 34, devoted to minerals and meteorites, was a case containing the Benld (Illinois) meteorite, and related material. This meteorite, which fell September 29, 1938, crashed through the roof of a garage, penetrated the top of a car, and then after passing through the seat of the car, and the floor board, struck the muffler, whence it rebounded and came to rest among the springs of the seat cushion. It is exhibited with the damaged car cushion and muffler, and sections of the damaged garage roof and car top. It is only the second recorded meteorite to fall in Illinois, and the eleventh known to have penetrated a building anywhere in the world. Examples of eight of these eleven are in the Museum collection. The meteorite collection has been further enlarged by the addition of seventeen other specimens. It now contains examples of 766 of all recorded falls, which total approximately 1,300. As many authorities believe that tectites, peculiar glassy objects of unknown origin, may be meteorites, a group of six of these was placed on exhibition with the meteorites.

The mineral collection, which occupies half of Hall 34, was little changed during the year. A few minerals were added, and seven cases and their contents were thoroughly cleaned.

As in the previous year, most of the installation work was concerned with the revision and enlargement of the exhibits of rocks and structural geology in Clarence Buckingham Hall (Hall 35). The enlarged rock collection was completed by the addition of six cases. Work of planning, installing, and incorporation of new material in the structural and physical geology collection filling the east end of the hall proceeded steadily during the year. Specimens to fill seven cases were prepared and installed. There are now fourteen cases of the new exhibit in place, and six cases remain to be prepared before the exhibit is complete. The case of fluorescent minerals, formerly installed in this hall, has been moved to an adjoining corridor where it can be seen to better advantage.

The large model of an iron mine which stood against the west wall of Hall 36 has been discarded and replaced by a relief map of North America, presented by the *Chicago Tribune*. This map, fifteen feet high and ten feet wide, hangs against the wall where it can be seen from all parts of the hall. As it is intended to illustrate the physiography of continents, and of North America in particular, it is colored to show physiographic features, and is not obscured by lettering or markings of political divisions.

In Frederick J. V. Skiff Hall (Hall 37), the economic geology collections were increased by the addition of five marble specimens from Poland and eleven from Texas, as well as a case of potash and salt deposits from Poland.

Cases in Ernest R. Graham Hall (Hall 38) were provided with a new type of translucent labels which are much easier to read than those formerly used. Labels for the fossil vertebrates were revised. Two large skeletons of vertebrate fossils, each occupying an individual case, were added to the collections in this hall. One, *Pseudomegatherium*, is a fossil sloth collected by a Museum expedition in Bolivia in 1927. The other, *Moropus*, is the skeleton of a strange animal related to the horses and rhinoceroses, but provided with claws instead of hoofs. A collection of Paleocene animals, obtained by a Museum expedition to Colorado in 1937, was installed this year. It includes the skull of a crocodile unique for its possession of horns.

Rearrangement, by WPA workers, of the large reserve collection of invertebrate fossils in Room 111 has been completed, but final checking of identifications, which must be done by a skilled paleontologist, is still required.

The work of conditioning the reserve collections of ores, minerals, rocks, and physical geology specimens on the third floor continued throughout the year. As comparatively little sorting and rearrangement was needed, the improvements consisted chiefly of restoring faded and lost numbers, cleaning specimens, treating them to prevent decay, perfecting the labeling, and sorting and classifying the large quantity of new material received during the year. This work has been satisfactorily done by WPA labor with a minimum of supervision by the staff.

Preparation of vertebrate fossils for exhibition and study proceeded steadily in the paleontology laboratories. Although much of the work is of such character that it can be trusted only to skilled preparators, a great deal has been accomplished by WPA labor after a short period of training. It has been possible to use the services of WPA men to the extent that the output of these work-rooms has been materially increased.

DEPARTMENT OF ZOOLOGY

EXPEDITIONS AND RESEARCH

The most important zoological expedition of the year was the Sewell Avery Expedition to British Guiana, led by Mr. Emmet R. Blake, Assistant Curator of Birds. In spite of misfortune, this

expedition reached its geographic objective, broke new ground in zoological exploration, and preserved a considerable portion of its tangible results. The expedition was planned to take advantage of an opportunity, not likely to recur, which was presented by special circumstances existing in 1938. The British Guiana-Brazil boundary had recently been surveyed with the result that many areas could be reached this year that would be inaccessible later because of the rapid growth of jungle vegetation. The region had been practically unexplored zoologically, and was especially interesting because the British Boundary Commission, whose co-operation is gratefully acknowledged, had discovered mountains, hitherto unknown, with an altitude of several thousand feet. The expedition, which consisted of fifteen men, including the former manager of transport for the Boundary Commission, ascended the Courantyne River and the New River to their head-waters by launch and dugout canoe. At this point, in virgin territory, a splendid collection of about two thousand specimens was made.

On the return trip, while attempting to pass the King William Rapids, a boat containing personnel, collections and equipment foundered, the level of the river having suddenly and unexpectedly fallen to the danger point. The entire personnel was marooned for ten days on a rocky islet in the river, surrounded by uninhabited country.

The expedition reached Georgetown late in the year, having salvaged more than half of the collections. The fact that no lives were lost in an extremely hazardous situation, and that collections were made from the previously unreached divide between the Atlantic and Amazonian drainages, is a demonstration of Mr. Blake's resourcefulness and energy.

Other expeditions were confined to the United States, Chief Curator Wilfred H. Osgood conducting one in New Mexico, and Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles, another in Arkansas.

Dr. Osgood, accompanied by Mr. W. F. Nichols, of Pasadena, California, and Dr. F. W. Gorham, of Los Angeles, spent several weeks in the Tularosa Basin of south central New Mexico. They collected specimens of the animals of the "white sands" and the adjoining black lava beds, which provide interesting illustrations of contemporary processes of evolution. Further collections were made in the Mogollon Mountains of western New Mexico, and in southwestern Colorado.

Mr. Schmidt, assisted by his son, Mr. John M. Schmidt, and Mr. Charles M. Barber, of Hot Springs, Arkansas, worked principally in the Ouachita Mountains of Arkansas. The party obtained 258 specimens, mostly amphibians and reptiles, including a series of the rare salamander *Plethodon ouachitae*.

Mr. Colin C. Sanborn, Curator of Mammals, while in London for research at the British Museum (Natural History), found time for a short expedition to Scotland during which he collected specimens, photographs, and accessories for a habitat group of red grouse planned for one of the series now under way in Hall 20. For much assistance and invaluable co-operation, he was greatly indebted to Mr. J. P. Loudon, of Symington, Lanarkshire.

Publications for the year include one leaflet and fourteen technical papers in the Zoological Series. In addition, the zoological staff contributed fifteen signed articles to *Field Museum News*.

The leaflet, No. 14 in the Zoology Series, is *Turtles of the Chicago Area*, by Curator Karl P. Schmidt. It provides a convenient manual for those interested in the local fauna, and is illustrated with two colored plates. The following were issued in the technical Zoological Series: *The Birds of El Salvador* (609 pages), by Donald R. Dickey and A. J. van Rossem; *General Function of the Gall Bladder from the Evolutionary Standpoint*, by F. W. Gorham and A. C. Ivy; *A New Catalogue of the Fresh-water Fishes of Panama*, by S. F. Hildebrand; *Catalogue of Birds of the Americas*, Part XI (Fringillidae, etc., 662 pages), by Charles E. Hellmayr; *Snakes of the Genus Tantilla in the United States*, by F. N. Blanchard; *A Geographic Variation Gradient in Frogs*, by Curator Karl P. Schmidt; *Notes on the Anatomy of the Treeshrew Dendrogale*, by Assistant Curator D. Dwight Davis; *Food Habits of Some Arctic Birds and Mammals*, by Clarence Cottam and H. C. Hanson; *Hemiptera from Iraq, Iran, and Arabia*, by W. E. China; *Orthoptera from Iraq and Iran*, by B. P. Uvarov; *Birds of the Crane Pacific Expedition*, by Ernst Mayr and Sidney Camras; *A New Woodrat from Mexico*, by Chief Curator Wilfred H. Osgood; *A New Pigeon from Colombia*, by Research Associate H. B. Conover; *A New Wood Owl from Chile*, by the late Research Associate Leslie Wheeler.

Curator Sanborn continued research on the classification of bats, and during the last half of the year was assigned to work exclusively on this subject in European museums, especially the British Museum. This was made possible through his appointment as a Fellow of the John Simon Guggenheim Memorial Foundation.

A NEW SPECIES OF CROCODILIAN

Skull of a hitherto unknown fossil horned crocodile-like reptile, *Ceratosuchus burdoshi*, discovered by a Field Museum expedition; and restoration based on this skull

Hall 38

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Dr. Charles E. Hellmayr, Associate Curator of Birds, proceeded with his work on the *Catalogue of Birds of the Americas*, working in Vienna until political conditions there obliged him to move to London where he has been afforded every facility at the British Museum. His work is now far advanced toward completion, and only one part consisting of two numbers remains to be published. One of these will include the game birds on which Mr. H. B. Conover, Research Associate in Ornithology, is collaborating.

Mr. Rudyerd Boulton, Curator of Birds, spent a month and a half at the American Museum of Natural History, New York, studying the birds of Portuguese West Africa, and thereafter continued other research on African birds. Also, he completed a new restoration of the dodo from a fresh examination of pertinent data. Late in the year, as the guest of Messrs. James Leavell and Carl Birdsall, of Chicago, he made some brief field studies in Mississippi, in company with Mr. Stephen S. Gregory, Jr., of Winnetka, Illinois. Collections of birds from that part of the south are very limited in number and scope. It is hoped that a more extensive program can be planned for further work in this zoologically neglected area.

In the Division of Amphibians and Reptiles, Curator Schmidt centered his research on the Central American collections and on the material from southwestern Asia, of which an annotated catalogue is in preparation.

Mr. D. Dwight Davis, Assistant Curator of Anatomy and Osteology, has been engaged in a detailed study of the gross anatomy of the giant panda, Su-Lin, the body of which was presented by the Chicago Zoological Society. "Embalmed" and injected especially for dissection, this specimen furnished an opportunity for the first thorough anatomical study ever made of this interesting species of mammal.

ACCESSIONS—ZOOLOGY

Zoological specimens accessioned during 1938 reached the unusual total of 25,794, including by far the largest number of vertebrates ever received in one year, and approximately double the average for the last fifteen years (the largest previous number was 20,630 in 1932). This great total is due mainly to a large single gift of more than 8,000 fishes, and a purchase of a collection of more than 6,000 birds. The accessions classify as follows: mammals 961; birds and birds' eggs 9,246; amphibians and reptiles 3,308; fishes 9,639; insects 942; lower invertebrates 1,698. Received as gifts were 13,436 speci-

mens; by exchange, 2,244; from Museum expeditions, 1,681; and by purchase, 8,433.

Among the most important gifts of mammals were thirty-five specimens from the Chicago Zoological Society, including the famous giant panda named Su-Lin. Mr. Carl Dreutzer, of Chicago, presented six well-prepared skins of bearded and ribbon seals, and the semi-fossilized skull of a musk-ox from Alaska. Mr. Paul O. McGrew, of the Department of Geology, gave a collection of eighty-four bats from Honduras, including various species new to the Museum's collection. Other bats from Honduras came from Miss Margaret Ennis, of Chicago. Dr. Henry Field, of the Department of Anthropology, supplemented previous gifts of mammals with twenty-one further specimens from Iraq and England. Dr. Harold Nelson, of the Oriental Institute, University of Chicago, contributed twenty-one bats taken at Luxor, Egypt. A collection of thirty-one small mammals from Wyoming was donated by Mr. R. S. Sturgis, of Winnetka.

Several of the fifty-five separate gifts of birds are noteworthy. Mr. H. B. Conover, Research Associate in Ornithology, presented sixty-seven specimens from Alaska, Iceland, Argentina and Tanganyika Territory. Mr. and Mrs. J. Andrews King, of Lake Forest, Illinois, gave twenty-seven specimens which they collected in Guatemala, including several magnificent ocellated turkeys and black chachalacas. Mrs. Hermon Dunlap Smith, of Lake Forest, Illinois, gave fifty specimens from Tanganyika Territory. The Colorado Museum of Natural History, Denver, presented two mounted eagle chicks which will be used in remodeling the golden eagle habitat group in Hall 20. Mrs. M. Don Clawson, of Beirut, Syria, gave twenty-four specimens representing her own collecting in Iraq. The Chicago Zoological Society presented 143 specimens of rare and exotic birds, most of which were used to augment the collection of study skeletons.

In addition to the above mentioned specimens, a gift of material and accessories for the construction of a habitat group of kiwis, curious flightless birds from New Zealand, was received from the Dominion Museum in Wellington, New Zealand.

Among gifts of amphibians and reptiles, the most notable for the year are thirty-two from the Instituto de La Salle, of Bogotá, Colombia, received through Brother Niceforo Maria; thirty-six specimens from Mr. Paul O. McGrew, of the Department of Geology, collected in the course of a paleontological expedition in Honduras; thirty-seven from Miss Margaret Ennis, of Chicago, which she collected in Honduras while engaged in archaeological field work at

Copan; six crocodile skulls, including one very large one, collected in the Philippine Islands, from Mr. A. W. Exline, of San José, Mindoro; eight specimens from Dr. W. P. Kennedy, of Baghdad, Iraq; three Bahaman fresh-water turtles of recently described species, from the University of Miami, Miami, Florida; and two fine pink rattlesnakes (the rare species *Crotalus lepidus lepidus*), from Dr. and Mrs. Paul Rudnick, of the McDonald Observatory, Fort Davis, Texas. As in previous years, the Chicago Zoological Society, the Lincoln Park Zoo, and the General Biological Supply House, of Chicago, have turned over important material to the Museum.

A large and important gift was that of 8,424 preserved fishes from the Zoology Department of the University of Chicago. These were collected by students and members of the faculty over a period of years and are of much value in studies of the local fauna of Illinois and neighboring states. Added to these were 248 specimens collected in Indiana and presented by Dr. Hurst Shoemaker of Stanford University, California. For exhibition, a number of game fishes were donated. Mr. Leon Mandel, of Chicago, gave a large "Mako" shark which he secured off the north coast of Cuba. Colonel Warren R. Roberts, of Chicago, contributed a white marlin, and Mr. Al Pflueger, of Miami, Florida, gave a specimen of Allison's tuna, a long-finned variety of the yellow-finned tuna. Mr. Michael Lerner, well-known sportsman of New York, presented an excellent mounted specimen of North Atlantic broadbill swordfish caught on rod and reel by Mrs. Lerner off Cape Breton, Nova Scotia—the first swordfish ever thus taken by a woman angler in Canadian waters. The John G. Shedd Aquarium, Chicago, continued its courtesy of past years by contributing a number of fish specimens.

Excepting six specimens received in exchange, all the somewhat limited accessions of insects were obtained through various donors. The most noteworthy acquisition was a lot of 543 named beetles, mainly from the Austrian Tyrol. These were received as a gift from Dr. Wolfgang Amschler, of Zeiyarn bei Cronach, Bavaria, Germany. Mr. Gordon Grant, of Los Angeles, California, continued to show his interest in the Museum by donating 161 insects that he collected in his vicinity. Through the kindness of Dr. Orlando Park, Evanston, Illinois, forty-five species of named New Zealand moths were added to the collection.

Of the 1,698 specimens of lower invertebrates accessioned, some 1,200 were shells presented by Mr. Clark W. Walter, of Chicago.

Gifts from the Chicago Zoological Society continued to provide much valuable material for anatomical study. Besides many specimens of which skeletons were preserved, forty-seven particularly interesting ones were especially prepared for investigation of the soft anatomy.

Material from Museum expeditions was unusually limited in amount, consisting mainly of small lots from various sources. In point of numbers, the most important material actually collected during 1938 was a collection from New Mexico, obtained by Chief Curator Osgood, assisted by Mr. W. F. Nichols and Dr. F. W. Gorham. Included were 265 mammals, sixty-four birds, and thirty-eight reptiles. From the 1937 expedition of Assistant Curator Blake to British Guiana and Brazil there was considerable material not received until 1938, the principal items being some eight hundred birds, sixty-eight mammals, and thirty-four reptiles. Material from Mr. Blake's 1938 expedition will not be accessioned until early in 1939. Curator Schmidt, during his brief expedition to Arkansas, assisted by his son, Mr. John M. Schmidt, and Mr. Charles M. Barber, of Hot Springs, obtained 258 specimens of reptiles and amphibians, including thirty-two of the rare salamander *Plethodon ouachitae*, which was a special desideratum.

The record of exchanges for the year shows the following totals: mammals 20; birds 997; amphibians and reptiles 1,216; fishes 5; insects 6. Of the birds, 994 are comprised in a selected lot of beautifully prepared specimens from El Salvador, received from the Donald R. Dickey Collection in Pasadena, California, not as an exchange, strictly speaking, but in return for the publication by Field Museum Press of a report on *The Birds of El Salvador*. The 1,216 amphibians and reptiles received in exchange were from numerous institutions and individuals. These included the Museum of Comparative Zoology, Cambridge, Massachusetts; the Carnegie Museum, Pittsburgh; the Museum of Zoology of the University of Oklahoma, at Norman; Dr. Walter P. Taylor, College Station, Texas; Dr. Vasco M. Tanner, Provo, Utah; Dr. L. H. Snyder, Seoul, Korea; Dr. Ventura Barnes, Caracas, Venezuela; Dr. Charles E. Burt, Winfield, Kansas; Mr. N. Bayard Green, Elkins, West Virginia, and Dr. Frieda Cobb Blanchard, Ann Arbor, Michigan.

Through the fund established by the late Leslie Wheeler, former Trustee of the Museum, and Research Associate in the Division of Birds, 188 specimens of birds of prey were acquired from India,

Manchukuo, Dutch East Indies, Iceland, Paraguay, Colombia, and Argentina.

The Sir Frederick Jackson collection of East African birds purchased during the year is the largest single accession of birds received by the Museum since the Cory collection in 1900, and certainly one of the most important. More than 6,600 specimens belonging to about 600 species are contained in the collection. It was made in Uganda and Kenya, between 1899 and 1917, by Sir Frederick during his long and distinguished career as a colonial officer, culminating in the governorship of Uganda. Many species are represented by large series from numerous localities which provide ample opportunity for detailed taxonomic and statistical studies on variation and speciation. The collection provides the necessary link, from the research point of view, between two important collections the Museum has possessed for some time—that made by Chief Curator Osgood in Ethiopia in 1926–27, and the South African collection of the Vernay Kalahari Expedition, made in 1930–31.

Other purchases include 225 small mammals from Mexico, and various small lots mainly from South America and the West Indies.

The principal purchases of amphibians and reptiles were 348 specimens of Australian species, forming a notable addition to the reference series for that region, from the collections of the late F. N. Blanchard; 502 specimens from northeastern Mexico; and 215, supplementing previous purchases, from Ecuador.

CATALOGUING, INVENTORYING AND LABELING—ZOOLOGY

During 1938 the number of zoological specimens catalogued was 20,472. These are divided by subjects as follows: mammals, 973; birds, 13,373; amphibians and reptiles, 2,750; fishes, 1,760; lower invertebrates, 590; anatomical specimens, 1,026.

In the Division of Mammals, an extensive program of reattaching original labels to skins, and other work connected with modernizing an outmoded system has continued. Details of this include the following: 10,192 skin labels typed; 5,510 skull labels typed; 4,107 skin labels tied; 2,000 field labels punched and strung; 4,400 skull tags punched; 1,079 skulls renumbered; 550 cards added to the systematic index, and 2,610 cards refiled. Three cases containing alcoholic specimens of mammals were rearranged, and fourteen cases were supplied with fresh alcohol. Skulls of large mammals were transferred to new cases and some progress made in their labeling and rearrangement.

The work on the arrangement of the birds' egg collection progressed rapidly, the full-time services of four persons, on the average, having been devoted to it. Fifty-six hundred and fifty-eight sets of eggs were catalogued, and 5,332 sets were sorted, packed in cotton and arranged systematically. This, plus the preceding year's total of 1,246, makes 6,578 in this stage of arrangement. Nine hundred and fifty-six additional sets were sorted, although not yet packed. Completely checked with respect to data were 2,609 sets—cards, labels, original data blanks, and catalogue being brought into agreement. Twelve hundred and eight sets were finally and permanently arranged in cotton, systematically sorted, and completely labeled with data blanks and reference cards filed.

As in 1937, a vast amount of work, involving on an average the full-time services of about seven persons, was devoted to the collection of study skins. This includes: re-identification of each specimen; correlation of old and present-day nomenclature; checking the catalogue against the original label; assembling the data on index cards; preparing a geographic cross-reference file; typing and lettering a new label and sewing it to the original; finding the often obscure locality on some map or in a published journal, and plotting that locality on maps especially drawn for the purpose.

Bird skins to a total of 1,647 were remade and degreased through the services of four federal Works Progress Administration taxidermists. This service is extremely important.

The collections of amphibians and reptiles in alcohol were subjected to the usual supervision. Cataloguing was kept fully up to date. About fifty gallons of stained alcohol were redistilled, and the alcohol level on all specimens in tanks and large jars was checked. The addition of new cases on the fourth floor of the Museum made possible the rearrangement of specimens in large bottles and the supplying of printed labels throughout. The dry material of turtles and crocodilians was relabeled.

Continued work on the fishes has brought the collection to a very satisfactory condition, with practically all the specimens arranged and labeled so that they can be located quickly when needed. Discolored alcohol has been removed and reclaimed by distillation. Labels that have become illegible from any cause have been replaced. Considerable time in the Division of Fishes was devoted to the preparation of indices of literature, and of colored figures of fishes, which have proved useful in current work.

In the Division of Anatomy and Osteology, after several years of effort, all dried skeletal material was finally cleaned, brought up to date, and boxed and labeled for the first time in the history of the Museum. Only current material remains to be cared for in the future.

The services of from one to three WPA workers made possible considerable progress in preparing insects that were in storage. Thus, 4,535 insects were pinned or spread, 4,200 were pin-labeled, and 1,609 bibliographic cards on butterflies were written. Assistant Curator Emil Liljeblad continued the collation and arrangement of North American beetles in new drawers. For this needed work, 106 species represented by 1,084 specimens of lady beetles, twenty-four species of comb-clawed beetles, and 1,425 specimens of darkling beetles were identified, and in many cases repinned and relabeled.

Under the direction of Curator Fritz Haas, who assumed his duties August 1, a Division of Lower Invertebrates was organized. After equipment was installed, the collections of mollusks and crustaceans were brought from storage. The work of sorting this material and identifying it was soon under way. Three hundred and forty-six lots of mollusks, and 423 lots of decapod crustaceans, were labeled and filed. Much help was received from Miss Claire Nemec, who served as a volunteer student assistant, and devoted herself to the classification and care of the crustacea.

Volunteer or student workers contributed much assistance in several divisions of the Department. In field work, aid was contributed by Mr. C. M. Barber, of Hot Springs, Arkansas, Dr. F. W. Gorham, of Los Angeles, California, and Mr. W. F. Nichols, of Pasadena, California.

Mr. Melvin Traylor, Jr., spent some time as a volunteer in the Division of Birds, working on Central American collections. In the same division, Miss Miriam Geller was engaged in the preparation of an ecological bibliography of the Chicago region with special reference to birds.

In the Division of Amphibians and Reptiles, Mr. John Kurfess, who worked four days a week during July and early August, relabeled the dry material of turtles and crocodilians. Mr. Fred Bromund spent some time in the preparation of a list of the living crocodilians. Dr. Hobart M. Smith volunteered much time to complete a catalogue of Field Museum's collections of amphibians and reptiles from Mexico. Mr. Robert Burton spent about thirty days identifying New Mexican reptiles and preparing a report on the scale count

variation of broods of garter snakes and water snakes. Mr. Don Kemp assisted in making scale counts of snakes. Mr. Philip Clark spent several months during the summer studying the Museum's collection of box tortoise skeletons. Mr. Albert A. Enzenbacher completed a number of water-color paintings of Illinois snakes, and made seven pencil drawings of frogs and lizards, which have been used in the Museum's technical publications.

The assistance given by increased personnel provided by the federal Works Progress Administration has been still more effective than in 1937. This is due to continually improving organization, and to accumulated experience on both sides. The average number of workers assigned to the Department was 50. A typical distribution of these is as follows: taxidermy, preparation, and exhibition work, 15; map-making, drafting, and illustrating, 7; Division of Mammals, 4; Division of Birds, 9; Division of Reptiles, 4; Division of Fishes, 1; Division of Anatomy and Osteology, 7; Division of Insects, 1; Division of Lower Invertebrates, 1.

INSTALLATIONS AND REARRANGEMENTS—ZOOLOGY

Seven large habitat groups were completed and opened to public view. Two of these were mammal groups in the Hall of Marine Mammals (Hall N), and five were bird groups in Hall 20. Numerous important additions to the synoptic exhibits also were made.

A group of Weddell's seal from the Antarctic adds an interesting animal to the Hall of Marine Mammals. The specimens were collected by Rear-Admiral Richard E. Byrd's Second Antarctic Expedition (1935). They were mounted with great fidelity to nature by Taxidermist C. J. Albrecht. The background was painted by Staff Artist Arthur G. Rueckert. Weddell's seal is a species of large size and rich coloration. In the group an adult female and her young pup are shown on a field of ice and snow. Other seals are seen in the distance, scattered about as is their habit during the breeding season.

In the same hall, an element of variety is provided by a very successful and somewhat unusual group of narwhals, small Arctic whales famous for their long, slender tusks. Three adults and one young animal are shown beneath the surface, swimming about the submerged foot of an iceberg. Specimens and data for this group were obtained in Greenland waters by Captain Robert A. Bartlett. These served as the basis for the very lifelike models used in the exhibit, which were skillfully prepared by Taxidermist Leon L.

EUROPEAN STORK

Specimens and accessories presented by Polish-American Chamber of Commerce, Warsaw, Poland

Taxidermy by John W. Moyer. Background by Arthur G. Rueckert

Hall 20

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Walters, using his "celluloid" process. The background was painted by Staff Artist Rueckert.

The addition of two cases greatly improved the synoptic or systematic exhibit of mammals in Hall 15. One of these, devoted to baboons, shows eight of the principal species variously disposed on an appropriate background of rock work. This was done mainly by Taxidermist W. E. Eigsti. Another case in the same hall shows several species of hyenas, also mounted by Mr. Eigsti, and on a separate screen the varied mammals comprising the raccoon family. Space in this case is reserved for the giant panda which appears to find its nearest relationships among these animals.

On the death of Su-Lin, the first giant panda to be exhibited alive, the body was presented to the Museum by the Chicago Zoological Society especially for anatomical study. The skin, however, was skillfully removed by Taxidermist Albrecht and mounted in a pose representing one of the animal's characteristic playful attitudes so familiar to the public. The specimen is temporarily installed in a special case in Stanley Field Hall where it has attracted much attention.

A further addition to Hall 15 was a single specimen of the strikingly marked Indo-Chinese monkey known as the douc langur.

Five habitat groups of birds were completed during the year. The Laysan Island group of oceanic birds was reinstalled by Taxidermist Leon L. Pray, with new accessories prepared by Mr. Frank Letl and his assistants. Two species of albatross are the predominant feature of the foreground, while in the background, painted by Mr. Pray, are some of the myriads of birds for which this mid-Pacific Island is noted. In addition to the albatrosses, two species of boobies, the red-tailed tropic bird, the man-o'-war bird, two species of terns, and several petrels are included.

The four other groups are entirely new. The backgrounds of three were painted partly by Staff Artist Charles A. Corwin, who died during the year, and were completed by Staff Artist Rueckert, who painted the fourth also. The birds were mounted by Taxidermist John W. Moyer, and the accessories were prepared under the direction of Mr. Letl.

Three of the groups are the gift of Mr. Leon Mandel, of Chicago, and contain specimens collected by Assistant Curator Emmet R. Blake during the Mandel Guatemala Expedition of 1934. They occupy an alcove in Hall 20 and well illustrate three different ecological habitats in the neo-tropics. The oropendula group shows a nest-

ing colony of giant orioles that overlooks a savanna scene from its lofty tree-top location. The nests, some of which are six feet long, are among the most remarkable constructed by any birds. Along with the eight giant orioles in the group is shown a rice grackle which parasitizes the orioles by taking possession of their nests. The second of the Guatemalan groups shows two species of toucans feeding on the fruit of a tree in the lowland rain-forest. Ten specimens are shown in spirited action. Other tropical species of woodpeckers, finches, etc., attracted to the same food supply, also appear in the group. Especially interesting is a wood thrush of northern climes which, during the winter months, associates with these tropical and exotic birds. The last habitat group from the Mandel Guatemala Expedition shows a pair of quetzals in their cloud forest habitat just below the tree-line on the slopes of the Volcan Tajamulco. In the background is a sea of clouds and mist through which lesser mountains poke their crests like islands. The principal vegetation in the group consists of tree ferns. In a clump of bromeliads in the foreground are several salamanders of two species discovered by the expedition. The quetzal has long been the national symbol of Guatemala.

The fifth group completed during the year was that of the European white stork, which is shown in a typical village habitat in southeastern Poland. The four specimens (two adults and two young), the nest, and even the thatched house-top were the gift of the Polish-American Chamber of Commerce in Warsaw. This group admirably illustrates the uncommon but important principle of change of habitat due to development of a more favorable environment. White storks have almost universally adopted a life associated with human society, just as chimney swifts have in America.

A life size model of the dodo, which became extinct in 1681, was made by Mr. Frank Gino, WPA sculptor, under the supervision of Curator Rudyerd Boulton. Dodos and their relative, the solitaire, comprise a unique family of birds related to pigeons. Since there are no complete specimens in existence, it is only by resorting to a reconstruction such as this that it is possible to make available in the Museum's exhibition halls a representation of this bird. Dodos, which were completely isolated on three small islands in the Indian Ocean, and became extinct through the agency of man shortly after their discovery, point lessons in evolution as well as conservation, and it is profitable to emphasize their history.

Considerable material was prepared and accumulated for exhibition in the Hall of Reptiles (Albert W. Harris Hall, Hall 18) but

installation has not yet taken place. Models in cellulose-acetate of two frogs, six lizards, and two snakes, were finished, as well as other reptiles of special interest. Among these is a rhinoceros iguana from a specimen collected by Mr. Leon Mandel on Gonave Island, Haiti; two specimens of the remarkable small American night lizard of the genus *Xantusia;* and a pink rattlesnake from material presented by Dr. and Mrs. Paul Rudnick, of Fort Davis, Texas. Numerous molds for future use were made of notable reptiles received from the Chicago Zoological Society and the Lincoln Park Zoo, and from specimens received by gift or purchase. Among these is an exceptionally large boa constrictor which is to be shown hanging from the limb of a tree.

Much work was done in preparation for the Hall of Fishes (Hall O), which it is hoped may be opened in the near future. Most important of the new exhibits prepared was a twenty-five foot whale shark, mounted by Taxidermist Julius Friesser from a specimen presented (through the American Museum of Natural History, New York), by Messrs. Spencer W. Stewart and Robert J. Sykes, of New York, who obtained it at Acapulco, Mexico.

An exhibit tracing the bones in the human skull was installed in Hall 19. Four parallel series of models of the skulls of eight vertebrates are colored to show graphically the changes that have taken place in four regions of the human skull. The models were prepared by Miss Nellie Starkson, under the direction of Assistant Curator D. Dwight Davis. Other models for a proposed exhibit illustrating the history of the muscular system are in preparation.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

During the spring and summer months the members of the Harris Extension staff made short collecting trips in the vicinity of Chicago to obtain plant material needed for new cases and for the replacement of older deteriorated models in the traveling exhibits which this Department circulates among the schools. Plant specimens included in early exhibits, either as accessories or as the principal object, were made of wax. Some of these are now twenty or more years old. The extremes of temperature, and the unavoidable jarring and jolting which the exhibits undergo in being transported from school to school, have adversely affected such models, making it desirable to replace them with others of more durable materials, such as celluloid. Approximately 370 plaster of paris molds of leaves

and flowers, as well as necessary photographs and color notes, were made for this purpose.

Specimens were collected for exhibits showing the cliff swallow, the American merganser, the black duck, the woodcock, and the progressive changes in the plumage of the starling. In addition, several skins of birds and small mammals were prepared and added to the reserve collection.

Curator John R. Millar visited a number of schools and attended science demonstrations to become more familiar with the present-day approach to the teaching of natural science in the grade schools. He also visited six representative eastern museums to become acquainted with their methods in school extension work.

Six new exhibits of the habitat type, with curved photographic backgrounds, were completed early in the year. Four of these show the tall or later buttercup, one the parasitic jaeger, and one the long-tailed jaeger.

Artifacts of the Alaska and Northwest Coast Indians were selected from surplus storage material in the Department of Anthropology and turned over to the Harris Extension. The Departments of Botany, Geology, and Zoology also released surplus specimens of plants, minerals, and shells. In all of this material there is a fair proportion of specimens suitable for loan study collections or for new portable exhibits.

In anticipation of the eventual storage of all the school cases on the ground floor, near the service entrance of the Museum, a move which will considerably reduce the amount of trucking in the building and the use of the elevator, a new card file has been made which will contain all information pertinent to the nature and condition of each individual exhibit, as well as a record of the repairs and changes made. A subject index of the exhibits now available for circulation also was made.

In furtherance of plans to lend to the schools a new type of special study collections of material which can be handled for closer examination by pupils and teachers, work has been begun on identification, labeling and indexing of reserve collections. Cases to transport such collections were designed, and one trial cabinet, to accommodate a loan study collection of rocks, was constructed in the shops of the Museum.

More than 1,000 herbarium specimens of local plants were collected by members of the staff during the year for inclusion in loan

UNDERSEA GROUP OF NARWHAL
Reproduced in cellulose-acetate by Leon L. Walters
From specimens collected by Captain Robert A. Bartlett
Hall of Marine Mammals (Hall N)

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

collections. This development of school service by the Museum is one of generally recognized merit. It is capable of great and varied expansion to include material useful not only in the study of natural history, but other subjects as well, particularly geography in its racial and economic aspects.

In order to make fuller and more efficient use of valuable third floor office space, a new office with connecting work-room was provided for the Curator by partitioning portions of the rooms occupied by the Assistant Curator and the Department's taxidermist. A space for plaster-casting, die-making and celluloid-pressing was provided by arranging wall cabinets to form an alcove in the south end of Room 95. The space has been equipped with transite-covered work tables, a stove, an exhaust fan, and a sink. New asbestos-covered benches were added to other work-rooms in the Department, and new storage shelves were constructed for approximately one hundred school cases.

The customary annual cleaning and polishing of all cases available for distribution were carried out during the summer vacation of the schools. Repairs of various kinds were made on 165 cases. This includes painting of case interiors, reinstallations, replacement of broken glass, and repairs of other damages occurring in the schools.

Seven schools were added to the list of those receiving Harris Extension cases, bringing the total now served to 472.

Difficulties which had been experienced in maintaining the usual bi-weekly schedule in the delivery of cases on the south side of the city were eliminated by completely revising the truck routes and reapportioning the number of schools to be called on each day.

Twenty special loans, totaling ninety-three cases, were made during the year in response to special requests from schools; from the Horticultural Committee of the Garden Club of Evanston; the Evanston Public Library; the United Charities Camp at Algonquin, Illinois; the Glenwood Park Training Camp for Recreational Workers (a WPA project) at Batavia, Illinois; and the International Live Stock Exposition at the Union Stock Yards, Chicago.

The two Museum trucks traveled a total of 11,727 miles in the distribution of cases, maintaining their regular schedule without accident. Scores of letters of appreciation were sent to the Museum praising the school exhibits for their value in classroom instruction and commending the reliability of the service.

THE JAMES NELSON AND ANNA LOUISE RAYMOND FOUNDATION FOR PUBLIC SCHOOL AND CHILDREN'S LECTURES

The James Nelson and Anna Louise Raymond Foundation continued in 1938 the presentation of various series of motion pictures, lectures, and other activities to supplement the educational work of the schools, and to provide many enjoyable hours of entertainment for the children. Included were special patriotic programs in addition to the spring, summer and autumn series of motion pictures shown in the James Simpson Theatre; guide-lecture tours in the exhibition halls, and extension lectures given in the classrooms and assembly halls of schools and in auditoriums made available by civic organizations. The year, like the previous one, has seen an increase in the number of groups from out-of-the-state schools asking for guide-lecture service at the Museum, and in the requests for lectures to be presented in the schools, and elsewhere. The Foundation co-operated with the schools also by arranging special activities as follow-ups to educational radio broadcasts.

ENTERTAINMENTS FOR CHILDREN—RAYMOND FOUNDATION

Motion picture entertainments were augmented by presentation, during July and August, of a summer series of six entertainments, in addition to the customary spring and autumn courses. Many of the films had talking, musical, and other sound effects. The programs of the three series were as follows:

SPRING COURSE

March 5—The Circus City; Trailing the Sea Horse; Dances of the Nations.

March 12—Trailmates, including: Wrongstart; Fun with a Bear Cub; The Porcupine Family; Shivers!

March 19—Travels of a Postage Stamp; Souvenirs of Singapore; Paws and Claws; Glimpses of China and Bali.

March 26—In the Land of the Harmonica; Water Folks; The Black Giant; The Navajo Demon.

April 2—The Settlement of Jamestown, including: Life within the Stockade; The Village of Powhatan; The Capture of Pocahontas; The Spanish Spy; The Marriage of Pocahontas and John Rolfe.

April 9—The Farmer's Friend; Peculiar Pets; Cairo to the Pyramids; The Veldt.

April 16—Gold Mining in the Klondike; Animals of the Salton Sea; The World of Paper; The Art of the Cave Man.

April 23—From Red Earth to Steel Girder; A Visit to Czechoslovakia.

April 30—Magic Myxies; Hindu Holiday; The Bittern; 200 Fathoms Deep.

SUMMER COURSE

July 7—Pied Piper of Hamelin (color cartoon by Walt Disney); The Covered Wagon.

July 14—The Grasshopper and the Ant (color cartoon by Walt Disney); Death Fangs; Songs of the Range; The Nightingale.

July 21—Black Beauty.

July 28—Itchy Scratchy; Songs of the Southland; Barefoot Boy.

August 4—Old King Cole (color cartoon by Walt Disney); The Great Raccoon Hunt; Songs of the Hills; Let 'er Buck.

August 11—King Neptune (color cartoon by Walt Disney); Robinson Crusoe; Brock the Badger.

AUTUMN COURSE

October 1—The China Shop (color cartoon by Walt Disney); Water Boy; Isle of Desire, including: Enchanting Tahiti; Manea Battles an Octopus; Walking Upon Hot Stones.

October 8—An Alpine Shepherd Lad; Geysers; The Throne of the Gods.

October 15—Jenny Wren and Her Neighbors; Columbus and His Son.

October 22—Nature's Rogue; Pirates of the Deep; Siamese Journey; The Stork Family from Poland; The Seventh Wonder.

October 29—Arctic Antics (cartoon by Walt Disney); Work Dogs of the North; A Young Explorer; Ikpuk, the Igloo Dweller; Gathering Moss.

November 5—Shades of Noah; Songs of the Plantations; Thrills on the Faroe Islands.

November 12—In the Land of Montezuma; Land of the Eagle; Fiesta of Calaveras; Quaint Animals of Guatemala.

November 19—Pied Piper of Hamelin (color cartoon by Walt Disney); Make a Mask; Beautiful Tyrol; Woodland Pals; Freaks of the Deep.

November 26—Mickey's Orphans (cartoon by Walt Disney); Snow Fun; Winter; Travels in Toyland.

During the Spring Course, special temporary exhibits for children were placed in Albert W. Harris Hall (Hall 18) to illustrate certain of the Museum Stories for Children for which it was not possible to secure good films. The dates and subjects of these exhibits were as follows:

March 12—Evergreens.

March 19—Bats.

March 26—Indian Musical Instruments.

April 2—Native American Nuts.

April 23—Agates.

The Raymond Foundation had the hearty co-operation of staff members and their assistants in collecting, arranging and labeling the objects displayed in the special exhibits.

In addition to the afore-mentioned series of entertainments, the following two special patriotic programs were offered in February:

February 12—Lincoln's Birthday Program: My Father; My First Jury; Native State.

February 22—Washington's Birthday Program: George Washington's Life and Times.

In all, twenty-six programs were offered in the James Simpson Theatre for the children of the city and its suburbs. Total attendance at these entertainments was 34,061. Of this number, 5,681 came to the patriotic programs, 8,587 to the spring series, 6,243 to the summer programs, and 13,550 to the autumn entertainments.

Newspapers which co-operated by giving publicity to the programs included the *Chicago Daily News, Chicago Tribune, Chicago Herald and Examiner, Chicago Evening American, Chicago Daily Times,* and *Downtown Shopping News,* as well as many neighborhood and suburban papers.

Opportunity is taken here to express appreciation to the University of Texas, the Chicago information office of the German Railways, the General Electric Company, and the Cunard-White Star Line (Chicago office), for the films they lent for use on the programs.

MUSEUM STORIES FOR CHILDREN—RAYMOND FOUNDATION

Two series of Museum Stories for Children were prepared by members of the Raymond Foundation staff. A new feature of these was the use of illustrations. Eighteen line drawings were made for this purpose by the Museum Illustrator. These stories were printed by Field Museum Press in folder form and distributed to all children attending the entertainments. The subjects of the stories correlated with films and slides shown, and with the special exhibits arranged for children. Following are the titles of the stories in each series:

Series XXX—Hippocampus, the Sea Horse; Evergreens; The Bats—Ace Fliers; North American Indian Musical Instruments; Some Native American Nuts; The Egyptian Pyramids; The First Artists; Agates; The Bitterns.

Series XXXI—Tahiti, "The Queen of the Pacific"; Nature's Fountains; The Wren Family; A Stork Family; Sheep, Past and Present; The Mosses; American Marsupials; Masks and Their Meanings; Strange Toys.

Copies of these stories were given to children during the summer by displaying them at the North Door in a special holder from which they could be taken, as well as by the regular distribution at the James Simpson Theatre on the mornings of the entertainments. Total distribution of the stories for the year amounted to 37,500 copies.

LECTURE TOURS FOR CHILDREN—RAYMOND FOUNDATION

By conducted tours, the use of the exhibition halls for classwork was extended to various groups, as follows:

STEEL CASES FOR ZOOLOGICAL SPECIMENS OF LARGE SIZE

Reference collections of mammals, birds, and reptiles

West Gallery of Fourth Floor

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

	Number of groups	Attendance
Tours for children of Chicago schools		
Chicago public schools	541	18,984
Chicago parochial schools	42	1,469
Chicago private schools	13	228
Tours for children of suburban schools		
Suburban public schools	335	10,043
Suburban parochial schools	11	328
Suburban private schools	14	321
Tours for special groups from clubs and other organizations	220	8,043

Thus, 1,176 groups received guide-lecture service, and the aggregate attendance was 39,416. The year has been outstanding for the many groups of children from other states to whom this service was extended. From New York, Virginia, Alabama, Missouri, Kansas, Iowa, Wisconsin, Michigan, and Indiana, 157 groups requested and received an hour to an hour and a half each of exhibition hall instruction. They included college, high school, and elementary school classes, as well as various youth organizations. On November 29 and December 1, the Museum was host to parties of Four-H Club boys and girls who visited the Museum for special tours of the halls devoted to prehistoric plant and animal life, prehistoric man, and the living races of mankind. The total number of delegates to the National Four-H Clubs Congress who attended these special tours was 1,585.

EXTENSION LECTURES—RAYMOND FOUNDATION

Extension lectures were offered to the schools under the plans so successfully employed for many years. In classrooms, laboratories, and assemblies, these talks were presented before audiences in both elementary and high schools. The subjects were:

FOR GEOGRAPHY AND HISTORY GROUPS

Glimpses of Eskimo Life; South America; North American Indians; Glimpses of Chinese Life; Native Life in the Philippines; Mexico and Its Southern Neighbors; The Romans; The Egyptians; Migisi, the Indian Lad.

FOR SCIENCE GROUPS

Field Museum and Its Work; Prehistoric Plants and Animals; Insect Life; Amphibians and Reptiles; The Story of Rubber; Coal and Iron; The Changing Earth; A Trip to Banana Land; Birds of the Chicago Region; Animal Life in the Chicago Region; Trees of the Chicago Region; Wild Flowers of the Chicago Region; Animals at Home; Our Outdoor Friends.

The addition of one more member to the staff made it possible to handle a few of the many requests from organizations other than schools for the extension lecture service. Thirty such lectures were given before club, camp, and church groups, with total attendance of 2,449.

In all, the extension lectures given by the staff of the Raymond Foundation totaled 540, and the aggregate attendance was 182,608.

RADIO PROGRAMS—RAYMOND FOUNDATION

The staff of the Raymond Foundation is again co-operating with the Public School Broadcasting Council in presenting a series of science broadcasts. Two days after a broadcast based upon Museum exhibits, groups of pupils from the grades most concerned visit the Museum and meet in the Lecture Hall. There mimeographed sheets containing additional information on the subject, with illustrations, are distributed, sample material is examined, and informal discussions are held. The pupils are then conducted on a tour of exhibition halls devoted to the subject of the broadcast. The topic for an October meeting was "Birches," and for one in December, "Black Diamonds."

ACCESSIONS

For use in the Theatre, the Lecture Hall, and in extension lectures, the Raymond Foundation acquired 590 stereopticon slides made by the Division of Photography. The Museum Illustrator colored 175 of these.

The Foundation received also a reel of motion picture film from the American Museum of Natural History, New York, to complete the *Simba* series. The title of this reel is *Man Versus Beast.* Professor Higley, of Wheaton College, Wheaton, Illinois, presented nine colored slides of Calico Rock, a famous natural feature near Buffalo Gap, South Dakota.

LECTURE TOURS AND MEETINGS FOR ADULTS—RAYMOND FOUNDATION

To clubs, conventions, colleges, hospital students, church groups, and other organizations, and to Museum visitors in general, guide-lecture service was made available without charge. During July and August, morning tours, as well as the regular afternoon ones, were given. The monthly schedules of subjects offered on tours were printed, and copies distributed at the main entrance of the Museum. City and suburban libraries, and other civic organizations, co-operated by distributing the tour schedules also. Tours for the public included 105 of a general nature, and 205 on specific subjects. In the 278 groups which participated gross attendance amounted to 4,593 persons. There were also special tours for 107 groups from colleges, clubs, hospitals and other organizations, with 2,944 persons participating.

On June 9, the Raymond Foundation assisted in commencement exercises for 845 foreign-born adults. The James Simpson Theatre, as in past years, was made available to the Board of Education for this purpose.

The use of the Lecture Hall was granted to the WPA workers employed on Museum projects for several meetings concerned with their activities. Two other groups also were permitted to hold meetings there. One adult group, members of a club, attended a lecture on minerals, after which they took part in a tour led by a Raymond staff member. Ten high school groups attended instructional meetings conducted by the Raymond Foundation staff in the hall, and four radio groups met there for informal talks and examinations of exhibits. In all, fifteen groups, totaling 762 persons, were served by the Raymond staff in the Lecture Hall.

SUMMARY OF ATTENDANCE AT ENTERTAINMENTS, LECTURES, ETC.

The various activities of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures reached a grand total of 2,143 groups, with an aggregate attendance of 265,229 individuals.

LECTURES FOR ADULTS

During the spring and autumn months, the Museum's sixty-ninth and seventieth courses of free lectures for adults were given on Saturday afternoons in the James Simpson Theatre. They were illustrated, as in past years, with notable motion pictures and stereopticon slides. The autumn course especially was outstanding for the number of natural-color films and slides used. Following are the programs of both series:

SIXTY-NINTH FREE LECTURE COURSE

March 5—The Last Stand of the Great Ice Age.
Mr. Bradford Washburn, Harvard University, Cambridge, Massachusetts.

March 12—Wings Over Utah.
Mr. Alfred M. Bailey, Colorado Museum of Natural History, Denver.

March 19—Adventures with Insects.
Mr. Brayton Eddy, Providence, Rhode Island.

March 26—Primeval Stone Monuments: The Mystery of the Megaliths.
Dr. Freiherr Robert von Heine-Geldern, Vienna.

April 2—The Search for the Congo Peacock.
Dr. James P. Chapin, American Museum of Natural History, New York.

April 9—Home Life of the Gibbon: A Manlike Ape.
Professor C. R. Carpenter, Columbia University, New York.

April 16—The Picture Book of a Canadian Naturalist.
Mr. Dan McCowan, Banff, Canada.

April 23—An Expedition to Prehistoric Pueblos.
Dr. Paul S. Martin, Field Museum.

April 30—From London to the South Seas (*in natural color*).
Mr. William B. Holmes, Evanston, Illinois.

SEVENTIETH FREE LECTURE COURSE

October 1—A Winter in Oaxaca.
Dr. W. H. Camp, New York Botanical Garden.

October 8—Around Again in the *Yankee*.
Captain Irving Johnson, Springfield, Massachusetts.

October 15—Jacklighting Wild Animals for the Movies.
Mr. Howard Cleaves, Staten Island, New York.

October 22—Our Stone-Pelted Planet.
Dr. H. H. Nininger, Denver, Colorado.

October 29—Birds and Animals of the Far North.
Commander Donald MacMillan, Provincetown, Massachusetts.

November 5—Where the Rainbow Ends.
Mr. Howard MacDonald, Yonkers, New York.

November 12—Primitive Tribes of the Guianan Jungle.
Colonel Charles Wellington Furlong, Cohasset, Massachusetts.

November 19—America and Isles of the Pacific.
Mr. Fred Payne Clatworthy, Estes Park, Colorado.

November 26—The Human Side of Nature.
Mr. Sam Campbell, Three Lakes, Wisconsin.

At these eighteen lectures the total attendance was 15,997 persons, of whom 7,109 attended the spring series, and 8,888 the autumn series.

LAYMAN LECTURE TOURS

Ever increasing popularity of the Sunday afternoon lecture tours, inaugurated in the autumn of 1937 by Mr. Paul G. Dallwig, led to their continuance in 1938. Mr. Dallwig, who has been appointed as a volunteer member of the staff with the title of Layman Lecturer, is a Chicago business man and Member of the Museum. He contributes this service for the public as a result of his deep interest in science, and his desire that science should be interpreted to other laymen in easily understood terms. An able speaker, he has developed a unique dramatic style which conveys information in a highly appealing manner. Mr. Dallwig lectured during eight months in 1938 (all except the summer period from June 1 to September 30) and it is noteworthy that applications for participation in these lecture tours grew constantly, and to such an extent, that it was twice necessary to increase the size to which parties were limited—first from 75 to 100 persons, and then to 125 persons. The interest which he stimulated in his listeners is further indicated by the fact that not a single person in any of the groups dropped out of a lecture tour prior to its conclusion, and frequently his talks were interrupted by spontaneous outbursts of applause. Participants in the tours

included, besides Chicagoans, visitors from all sections of the United States and Canada, and even from European countries. Numbered among them were business men and women, lawyers, physicians, clergymen, office workers, university professors and instructors, high school principals and teachers, college students, world travelers, actors, and professional lecturers, as well as groups from women's clubs, business men's associations, and other organizations.

The Sunday lecture-tours are presented without charge. The groups assemble at 2 P.M. in Stanley Field Hall. The demands have proved so great that it is always necessary to make reservations in advance, sometimes several weeks ahead. As far as practicable, however, Members of the Museum are accommodated regardless of whether or not they have made advance reservations, but it is advisable to make application beforehand.

The subjects presented during 1938 were as follows:

January (five Sundays)—Nature's "March of Time" (Hall of Historical Geology).
February (four Sundays)—Digging Up Our Ancestral Skeletons (Hall of the Stone Age of the Old World).
March (four Sundays)—Parade of the Races (Hall of Man).
April (four Sundays)—Digging Up Our Ancestral Skeletons (Hall of the Stone Age of the Old World).
May (five Sundays)—Parade of the Races (Hall of Man).
October (five Sundays)—Digging Up the Cave Man's Past (Hall of the Stone Age of the Old World).
November (four Sundays)—Nature's "March of Time" (Hall of Historical Geology).
December (three Sundays)—Gems, Jewels, and "Junk" (Hall of Minerals and the Gem Room).

In all, thirty-four Sunday lecture-tours were given, the total attendance for the eight months being 2,741.

SUMMARY OF ATTENDANCE AT LECTURES, ETC.

Instruction or other similar services were rendered by the Museum to a total of 2,195 groups comprising 283,967 individuals. These figures include all those reached in the 2,143 groups aggregating 265,229 children and other persons who participated in the various activities under the auspices of the James Nelson and Anna Louise Raymond Foundation, plus the 15,997 who attended the lectures for adults in the James Simpson Theatre, and the 2,741 who participated in the Sunday afternoon Layman Lecture Tours.

THE LIBRARY

During 1938 the functions of the various divisions of the Library have steadily increased, both with respect to internal improvement

of organization, and in services to those who have consulted its collections of scientific literature.

There have been accessioned 3,310 books. For these, necessary cards have been written, as well as author cards for 666 pamphlets. In all, approximately 24,000 cards have been added to the various catalogues, or about 5,000 more than in 1937. Some 400 letters in foreign languages have been translated. No record has been kept of telephone calls for various items of information, which sometimes are answered quickly, but often require considerable research.

The regular periodical list was increased by resumption of various subscriptions that had been suspended for several years. Intervening volumes were purchased also to make the sets consecutive. The list was further enlarged by gifts from members of the Museum staff of current issues of desired periodicals. It is of interest to note that the number of periodicals and serials received in 1938 numbered 1,550 more than in 1937.

The physical appearance of the Reading Room in the General Library has been greatly improved by the replacement of the old shades with a "sunlight" type, and attractive draperies hung at the windows greatly soften the outlines of the room. Both of these changes have enhanced the atmosphere of hospitality which greets the Library's patrons. Experiments in better lighting, begun during the year, are being continued.

The number of readers has noticeably increased, especially those from universities, colleges, and high schools. They have come not only from the city and nearby suburbs, but from all parts of this country and even from foreign lands. The total number during the year, exclusive of Museum personnel, was 2,510.

The Library depends to a large extent for its growth on its exchanges of publications with other scientific and educational institutions. During 1938 there have been effected some very desirable exchanges which have brought and will continue to bring important material.

In fulfillment of the desires of the different Departments of the Museum, opportunities have been embraced to fill out incomplete sets of valuable periodicals, thus increasing the usefulness of the sets. Among sets thus completed are the *Quarterly Journal* of the London Geological Society; Palaeontographical Society (London) Publications; *Memoirs* of the Geological Society of India; *Anatomischer Anzeiger; Internationales Archiv für Ethnographie; Revue de Zoologie*

et de Botanique Africaines; and *Sudan Notes and Records.* Also the greater part of the *Journal of Morphology* was obtained. In the coming years further additions will be made.

One of the outstanding purchases of the year was the *Fossilium Catalogus,* complete to date, which was much desired by the Division of Paleontology. Another was the *Manual of Conchology* by Tryon and Pilsbry. Other especially interesting purchases were: *The Botanical Cabinet,* 1818–1833; Umehara, *Shina-kodo-seikwa;* Oba and Kayanoto, *Tomb of Wang Kuang;* Siren, *Chinese Paintings in American Collections;* Jackson, *Birds of Kenya Colony;* Martius, *Nova Genera et Species Plantarum;* Smitt, *Skandinaviens Fiskar;* Fischer and Crosse, *Etudes des Mollusques Terrestres;* Milne-Edwards, *Histoire Naturelle des Crustacés,* and *Die Tierwelt* (26 numbers).

Among gifts of the year should be mentioned especially the books received from the Carrie Ryerson Estate, numbering about 800 volumes. These are largely botanical or zoological, but include also works on travel and more general subjects. Several dictionaries were very welcome additions, particularly Littré, *Dictionnaire de la Langue Française;* and Dupiney de Vorpierre, *Dictionnaire Française Illustrée et Encyclopédie Universelle.* Also received in this gift were Prescott's *History of Ferdinand and Isabella, Charles the Fifth, History of the Conquest of Mexico,* and *History of the Conquest of Peru.* In addition, a copy of *Cyclopaedia of Agriculture* and also the last edition of *Encyclopaedia Britannica* were included.

Colonel Theodore Roosevelt, a Trustee, presented two religious books written on parchment in the beautiful Tibetan script. This is a valuable addition to the extensive Tibetan language material in the Library.

President Stanley Field presented a fine copy of Lewin's *Papilios of Great Britain,* published in 1795. This contains forty-five beautiful hand-colored plates made by the author. It was originally issued under the title *Insects of Great Britain, etc.,* Volume 1. Mr. Field again presented the weekly numbers of the *Illustrated London News,* copies of *Bird-Lore,* and publications on the conservation of wild life, including some from the Institut des Parcs Nationaux du Congo Belge.

Among other most helpful gifts are those received from the Carnegie Institution, of Washington, D.C. The Carnegie Corporation, of New York, presented *Mammals of Southwest Africa* (in two volumes) by Shortridge. Dr. Henry Field, Curator of Physical Anthropology, presented the current numbers of several periodicals

as well as various useful books on archaeology. Mr. H. B. Conover, Research Associate in Ornithology, gave the *Catalogue of Maps of Hispanic America* issued by the American Geographical Society. From Dr. Francis Drouet, Curator of Cryptogamic Botany, interesting botanical publications were received.

Mr. Julius Friesser, of the Department of Zoology, gave a copy of the second edition of Schlechter's *Orchideen*. Dr. Fritz Haas, Curator of Lower Invertebrates, gave nine numbers of Bronn's *Klassen und Ordnungen des Tierreichs*. Mr. E. W. Lazell, of Portland, Oregon, presented several geological works issued between 1883 and 1889. Mr. Elmer S. Riggs, Curator of Paleontology, assisted in the acquisition of the publications of the Geological Society of America, and a series of the *Journal of Paleontology*. Mr. Karl P. Schmidt, Curator of Amphibians and Reptiles, gave the *Scientific Monthly* and several other helpful and interesting volumes. Dr. E. E. Sherff, Research Associate in Systematic Botany, gave desirable botanical works. Mr. George Siverling, Chicago, presented Francisco Pi y Margall, *Historia General de America*, Volume 1, Part 2. Dr. Albert B. Lewis, Curator of Melanesian Ethnology, gave several interesting and helpful books. Mr. Paul C. Standley, Curator of the Herbarium, and Dr. Alexander de Sushko, Chicago, also presented valuable books. Many others have presented publications which likewise have been gratefully received.

Helpers assigned by the federal Works Progress Administration aided materially in the accomplishments of the year. One of the projects carried on by them has been the binding of books and pamphlets. A press was built which enabled them to do much better work than in previous years. A machine for sewing was also constructed. Both of these increased production. Maps have been mounted in a manner that will preserve many which had shown signs of hard use. Another project has been the translation of some Russian publications into English. WPA helpers have also catalogued material that otherwise would have had to wait indefinitely.

The Library has again been indebted to other libraries for loans of much needed books. Acknowledgment is especially made to the Library of Congress, Washington, D.C.; the Library of the United States Department of Agriculture; the John Crerar Library, Chicago; the University of Chicago Libraries; the Libraries of the Museum of Comparative Zoology, the Peabody Institute, and the Gray Herbarium at Harvard University; the New York Public Library; the Library of the Missouri Botanical Garden, St. Louis; Northwestern

THE BOOK SHOP OF THE MUSEUM

Opened in April, this shop, located near the North Entrance, extends a new service to Museum Members and the general public
All books carried in stock have the endorsement of the scientific staff

University Library, Evanston, Illinois; the Library of the American Museum of Natural History, New York; the Newberry Library, Chicago; and the Library of the University of Michigan, Ann Arbor. Conversely, Field Museum loaned books and periodicals to fifteen different organizations.

PUBLICATIONS AND PRINTING

The number of scientific papers published during 1938 again showed an increase over any previous year, and the Museum distributed copies extensively to both foreign and domestic museums, libraries, and other institutions on its exchange lists. To these, and to individuals engaged in scientific work, the Museum sent 16,533 copies of technical publications, 1,084 popular leaflets, and 482 miscellaneous publications and pamphlets. It also sent 3,838 copies of the *Annual Report of the Director* for 1937, and 636 copies of leaflets, to Members of the Museum.

Sales during the year totaled 10,985 scientific publications, 8,364 leaflets, and 11,023 miscellaneous publications and pamphlets, such as Guides, Handbooks, and Memoirs.

Thirty-two large boxes containing 6,393 individually addressed packages of publications were shipped to the Smithsonian Institution at Washington, D.C., for distribution to foreign destinations through its exchange bureau. This courteous co-operation on the part of the Washington institution in effecting deliveries is deeply appreciated at Field Museum. An approximately equal quantity of these books was sent by stamped mail to the institutions and individuals on the domestic exchange list. Seventy-three new exchange arrangements with domestic and foreign institutions and scientists were established.

For future sales and distribution, 16,781 copies of various publications and leaflets were wrapped in packages, labeled, and stored in the stock room.

Second editions were issued of the anthropology leaflet *Indian Tribes of the Chicago Area*, and the botany leaflet *Poison Ivy*, of which the first editions were printed in 1926. Great public interest in both the living races of man, and their predecessors on earth, again was evidenced by the sale of a total of some 1,800 copies of the leaflets *The Races of Mankind* and *Prehistoric Man*.

The total number of post cards sold during 1938 was 108,194, of which 16,165 were grouped into 745 sets.

The Museum issued three colored post cards of zoological habitat groups, reproduced from color photographs made by Mr. Clarence B.

429.—Botanical Series, Vol. XVIII, Part IV. Flora of Costa Rica. By Paul C. Standley. November 30, 1938. 438 pages. Edition 818.

430.—Zoological Series, Vol. XIII, Part XI. Catalogue of Birds of the Americas and the Adjacent Islands. By Charles E. Hellmayr. December 31, 1938. 668 pages. Edition 825.

431.—Zoological Series, Vol. XX, No. 35. A New Woodrat from Mexico. By Wilfred H. Osgood. December 31, 1938. 2 pages. Edition 807.

432.—Zoological Series, Vol. XX, No. 36. A New Pigeon from Colombia. By H. B. Conover. December 31, 1938. 2 pages. Edition 856.

433.—Zoological Series, Vol. XX, No. 37. A New Wood Owl from Chile. By Leslie Wheeler. December 31, 1938. 4 pages. Edition 820.

434.—Geological Series, Vol. VII, No. 4. Additional Notes on the Grinnell Ice-Cap. By Sharat K. Roy. December 31, 1938. 12 pages, 4 text figures, 1 map. Edition 801.

MUSEUM TECHNIQUE SERIES

No. 5. Unique Construction of an Exhibit of Pliocene Edentates. By Phil C. Orr. March 30, 1938. 6 pages, 1 text figure. Edition 775.

LEAFLET SERIES

Anthropology, No. 24 (second edition). Indian Tribes of the Chicago Region. By William Duncan Strong. 36 pages, 8 plates. August, 1938. Edition 1,061.

Botany, No. 22. Coffee. By B. E. Dahlgren. 44 pages, 14 plates, 1 text figure. June, 1938. Edition 2,536.

Botany, No. 12 (second edition). Poison Ivy. By J. B. McNair. 12 pages, 5 text figures. August, 1938. Edition 2,518.

Zoology, No. 14. The Turtles of the Chicago Area. By Karl P. Schmidt. 24 pages, 2 colored plates, 11 text figures. June, 1938. Edition 3,086.

General. Field Museum and Group Education. 50 pages, 12 text figures. September, 1938. Edition 1,252.

GUIDE SERIES

General Guide to Field Museum of Natural History Exhibits. Eighteenth edition (reprint). 1938. 48 pages, 1 plate. Edition 1,087.

General Guide to Field Museum of Natural History Exhibits. Eighteenth edition (reprint). 1938. 48 pages, 1 plate. Edition 3,010.

General Guide to Field Museum of Natural History Exhibits. Nineteenth edition. 1938. 56 pages, 6 text figures. Edition 6,050.

Handbook. General information concerning the Museum, its history, building, exhibits, expeditions and activities. Seventh edition. February, 1938. 74 pages, 8 plates. Edition 3,521.

PHOTOGRAPHY AND ILLUSTRATION

During 1938 the Division of Photography's production, including negatives, prints, photographic enlargements, lantern slides, transparencies and transparent exhibition labels, totaled 20,227 items. Most of this work was done in fulfillment of the needs of the various Departments and Divisions of the Museum, but includes also 542 prints, enlargements, and slides made for sales on orders received from the public.

Of the total items produced, 9,481 were the work of the Staff Photographer and his Assistant, and 10,746 resulted from the em-

A RECENT ADDITION TO THE PORTABLE EXHIBITS LOANED TO THE SCHOOLS OF CHICAGO BY THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY

One-sixth actual size

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

ployment of several workers assigned by the federal Works Progress Administration. The WPA work was of a more routine character, chiefly making prints, including several thousand prints of type specimens of plants for the Herbarium from the negatives secured in Europe through the Department of Botany's project in foreign herbaria.

In addition to photographers, the WPA furnished clerks to the Division to carry on the important tasks of classifying, indexing, and numbering negatives and prints, and maintaining in good order the Museum's vast negative collection which at the end of the year had reached a total of approximately 88,000 negatives on file. The systematization of these files has increased enormously their availability for prompt and efficient service in filling requisitions. The number of cards written and filed, negatives captioned and filed, and other clerical operations performed, aggregated more than 80,000 items.

A total of 724,525 prints was produced by the Museum Collotyper. Included among these were illustrations for publications and leaflets, covers for various books and pamphlets, picture post cards, and headings for lecture posters.

Three hundred and thirty-five orders for art work of various types were filled by the Museum Illustrator to meet the needs of the various Departments and Divisions of the institution. This total included, among other items, more than eighty-four drawings, the coloring of sixty-seven stereopticon slides, and the retouching of photographs, preparation and lettering of maps, etc.

PUBLIC RELATIONS

Field Museum during 1938 maintained its relations with the press on a scale which resulted in almost daily appearance of announcements of its activities, such as lectures, tours, etc., and more elaborate articles on its exhibits, its expeditions, and other topics. Thus the public was promptly and constantly informed of the institution's services and researches. The interest thereby engendered promoted attendance, and created a general awareness of the functions of the Museum, and of its civic and scientific importance.

The Public Relations Counsel prepared and distributed to the daily newspapers a total of 324 news releases, accompanied in many cases by photographs and captions which aggregated several hundred in number. This represented a substantial increase over 1937. Although the principal objective in this press campaign was space

in the several great metropolitan dailies of Chicago, the releases were circulated also to the various small community papers published in various sections of the city, and its suburbs, thus reaching many thousands of additional readers. News releases and photographs were also circulated on a national scale, and to some extent internationally, through the co-operation of such news agencies as the Associated Press, United Press, International News Service, Science Service, Wide-World Photos, and others.

The releases issued by the Museum, in addition to attaining publication as sent, were often effective also in stimulating editors of newspapers and magazines to assign staff writers and camera-men to develop "angles" of their own, and to build up "feature stories" and series of pictures. A number of editorials also were inspired by news from Field Museum.

Among the outstanding publicity features of the year were an entire page of photographs in color of Museum exhibits, published in the *Chicago Sunday Herald and Examiner;* a full-page article accompanied by illustrations and maps, on the Museum's expeditions of 1938, which also appeared in the *Sunday Herald and Examiner;* two full pages of pencil sketches made in the Museum by a staff artist of the *Chicago Sunday Times;* numerous front-page stories in the *Chicago Tribune, Chicago Daily News,* and *Chicago Evening American* on subjects such as the preparation and installation of Su-Lin, giant panda late of the Brookfield Zoo, as a Museum exhibit, and the germination in the Department of Botany of seeds of lotus plants estimated to be from 300 to 500 years old. Nine special releases, containing abstracts of the most interesting scientific papers presented before the American Oriental Society's annual meeting at a session held at the Museum, resulted in extensive publicity. Articles appeared also in various weekly and monthly periodicals, while a number of Museum photographs were published in various issues of the *Illustrated London News.* Nearly every week, as in the preceding year, one or more photographs and articles on the Museum appeared in the *National Corporation Reporter,* a periodical having wide circulation among members of the legal profession. Articles and photographs on specified subjects were supplied by the Museum in fulfillment of requests from various publishers.

In co-operation with officials of the Chicago Board of Education, the *Chicago Daily Times,* and the *Chicago Herald and Examiner,* the Museum supplied pictorial material for use in publicity to promote

a series of special educational radio programs presented for children by the Radio Council of the Chicago Public Schools.

The most curious publicity project in the history of the Museum was the preparation in the year 1938 of material for "release" in A.D. 8113! This was done by supplying photographs and data requested by Oglethorpe University for burial in an especially designed and safeguarded sealed crypt which, it is hoped, will simplify the task of future archaeologists more than 6,000 years from now in reconstructing the story of civilization in the twentieth century. The crypt is a co-operative project of Oglethorpe University and the *Scientific American*, and contains material representing all phases of contemporary life. The year 8113 was chosen because by that time 6,177 years will have passed since 1936, when assemblage of material for this crypt began. This period corresponds to the 6,177 years *preceding* 1936 from an ancient Egyptian date (4241 B.C.) regarded as the first fixed date in human history.

Field Museum News, the monthly bulletin which maintains contact between the Museum and its Members, was published with regularity, completing its ninth volume, and ninth year of operation. Every effort was made to improve editorial content and illustrations, and as an innovation there was printed in the December issue a special illustration, in four colors, of the new group of quetzal (national bird of Guatemala) opened in Hall 20 during the year. This was made from a color photograph taken by Mr. Clarence B. Mitchell, Research Associate in Photography. Toward the end of the year plans were completed for doubling the size and improving the typographical make-up of the *News*, and the first issue (January, 1939) in the new format was published and placed in the mail on December 30. By the changes made, distinctly better legibility is accomplished, and space is provided for a more complete and elaborate coverage of Museum activities. *Field Museum News*, in addition to serving as an organ for the information of the membership, performs additional functions as a publication for exchange with other institutions, and as a supplementary medium of publicity. Copies are sent to editors of newspapers and magazines, who frequently reprint or quote its articles.

As usual, the Museum received additional publicity in broadcasts of various radio stations and networks, and on several occasions its activities were the subject of motion picture newsreels. Advertising media of a number of organizations were made available, without charge, for the publicizing of Museum lectures and exhibits. Among

transportation systems which displayed Museum placards in their stations or cars were the Chicago and North Western Railway, Illinois Central System, Chicago Surface Lines, Chicago Rapid Transit Lines, Chicago, Aurora and Elgin Railroad, and Chicago, North Shore and Milwaukee Railroad. Many thousands of information folders about the Museum, and others about the Sunday afternoon lecture tours presented by Mr. Paul G. Dallwig, the Layman Lecturer, were distributed through the courtesy of hotels, clubs, commercial organizations, libraries, schools, travel bureaus, department stores and public institutions. In addition, some of these establishments displayed posters advertising the lecture courses.

Invitations, accompanied by folders, were sent to the delegates attending several hundred conventions held in Chicago, suggesting that they include the Museum among the places to be visited while in the city.

MEMBERSHIP

It is regretted that a decline in the number of persons on the Museum's membership lists must be reported for 1938. The total number of memberships recorded as of December 31, 1938, is 4,122, as against 4,266 on the same date in 1937.

Of those who resigned, the majority apparently found this step necessary because of the stress of economic conditions. To these former Members appreciation is expressed for their past support, and it is hoped they may find it possible to resume their memberships in the early future.

An expression of gratitude for their support is due to the new Members who have enrolled, as well as to those Members who have so loyally continued year after year their support of the Museum, thus helping to make possible the continuance and expansion of the institution's cultural activities.

The following tabulation shows the number of names on the list of each of the membership classifications at the end of 1938:

Benefactors	23
Honorary Members	14
Patrons	25
Corresponding Members	6
Contributors	117
Corporate Members	44
Life Members	271
Non-Resident Life Members	10
Associate Members	2,383
Non-Resident Associate Members	7
Sustaining Members	10
Annual Members	1,212
Total Memberships	4,122

The names of all persons listed as Members during 1938 will be found on the pages at the end of this Report.

In the pages which follow are submitted the Museum's financial statements, lists of accessions, *et cetera*.

CLIFFORD C. GREGG, *Director*

COMPARATIVE ATTENDANCE STATISTICS AND DOOR RECEIPTS

FOR YEARS 1937 AND 1938

	1938		1937
Total attendance	1,391,580		1,292,023
Paid attendance	91,097		94,217
Free admissions on pay days:			
Students	46,861		29,460
School children	126,554		119,486
Teachers	2,900		2,492
Members	1,255		1,524
Admissions on free days:			
Thursdays (52)	196,003	(52)	186,198
Saturdays (52)	354,543	(52)	322,980
Sundays (51)	572,367	(52)	535,666
Highest attendance (May 20, 1938)	47,794	(May 21)	42,421
Lowest attendance (April 6, 1938)	101	(Dec. 17)	129
Highest paid attendance (Sept. 5, 1938)	3,115	(Sept. 6)	3,448
Average daily admissions (363 days)	3,834	(363 days)	3,570
Average paid admissions (208 days)	438	(209 days)	450
Number of guides sold	7,219		7,555
Number of articles checked	22,604		21,917
Number of picture post cards sold	108,194		127,827
Sales of publications, leaflets, handbooks, portfolios, and photographs	$7,601.13		$5,289.49

COMPARATIVE FINANCIAL STATEMENTS

FOR YEARS 1937 AND 1938

INCOME	1938		1937	
Endowment Funds	$191,247.11		$175,878.29	
Funds held under annuity agreements	28,878.51		37,022.16	
Life Membership Fund	11,903.16		13,275.28	
Associate Membership Fund	12,843.41		12,754.67	
Chicago Park District	117,904.31		92,122.69	
Annual and Sustaining Memberships	11,020.00		12,383.50	
Admissions	22,774.25		23,554.25	
Sundry receipts	19,757.51		19,193.00	
Contributions, general purposes	25,961.22		50,305.04	
Contributions, special purposes (expended *per contra*)	28,172.28		58,558.57	
Special funds: Part expended this year for purposes designated (included *per contra*)	15,276.54		16,358.07	
		$485,738.30		$511,405.52
EXPENDITURES				
Collections	$ 9,918.28		$ 5,796.12	
Operating expenses capitalized and added to collections	43,731.66		46,338.05	
Expeditions	13,159.97		10,305.17	
Furniture, fixtures, etc.	24,923.14		48,531.38	
Wages capitalized and added to fixtures	6,141.68		2,240.86	
Pensions, group insurance	15,361.67		15,904.12	
Departmental expenses	42,860.28		43,202.37	
General operating expenses	311,591.69		298,735.04	
Annuities on contingent gifts	30,044.40		35,929.23	
Added to principal of annuity endowments			1,092.93	
Interest on loans	1,229.00		2,191.06	
Paid on bank loans	9,400.00		20,375.80	
		$508,361.77		$530,642.13
	Deficit	$ 22,623.47	Deficit	$ 19,236.61
Contribution by Mr. Marshall Field		19,530.00		28,750.00
	Net Deficit	$ 3,093.47	Balance	$ 9,513.39
Notes payable January 1		$ 36,000.00		$ 56,375.80
Paid on account		9,400.00		20.375.80
Balance payable December 31		$ 26,600.00		$ 36,000.00

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

	1938		1937	
Income from Endowment	$16,883.42		$18,964.67	
Operating expenses	15,773.74		13,879.08	
December 31 Balance	$ 1,109.68	Balance	$ 5,085.59	

LIST OF ACCESSIONS

DEPARTMENT OF ANTHROPOLOGY

BERGER, MRS. WILLIAM B., Denver, Colorado: 2 Babylonian contracts—ruins of Drehem, near Nippur (gift).

BREUIL, ABBÉ HENRI, Paris, France: 13 negatives taken in 1911 at Cap Blanc, Dordogne, France (gift).

BRONSON, MRS. H. P., Chicago: 1 blue-glazed Ushebti (1000 B.C.) and 1 string of glazed beads (1500 B.C. or later)—Egypt (gift).

BROOKLYN MUSEUM, Brooklyn, New York: Model of Maya temple at Xlobpak, Yucatan, Mexico (exchange).

COHEN, ABRAHAM, Chicago: 1 beaded jacket—Brulé Sioux (gift).

FIELD, DR. HENRY, Chicago: 5 objects: 1 large sarcophagus, 1 carved marble bath, 1 marble basin with stand, and 2 marble capitals—Italy; 4 photographs of construction of Swiss Lake Dweller Village (Zurich Natural History Museum exhibit), Switzerland (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Dr. Paul S. Martin (Field Museum Archaeological Expedition to the Southwest): approximately 2,500 objects: bone and stone tools, potsherds and whole or mendable pieces of pottery.

Purchase: 1 Chinese pottery jar—China.

GILBERT, MISS HELEN R., Chicago: 1 piece of painted cloth—interior of Bali (gift).

HAAS, DR. FRITZ, Chicago: 1 bow and 14 arrows—Vachokwe tribe, Angola, West Africa (gift).

HAMMILL, MISS EDITH K., Chicago: 1 pot—Apache(?), New Mexico(?) (gift).

KONSBERG, A. V., Chicago: 1 model outrigger canoe—Samoa (gift).

MCCUTCHEON, JOHN T., Chicago: 1 Peruvian jar—obtained in Panama by General Charles Dawes (gift).

MANDEL, MRS. EDNA HORN, Chicago: 1 lot of copper spindle whorls and beads strung together—Peru; 2 ceramic statues of Yama, the god of death—China (gift).

MEEKER, MRS. ARTHUR, Chicago: 1 necklace of two strands made up of coral and silver coins—Chichicastenango, Guatemala (gift).

OWEN, DR. A. K., Topeka, Kansas: 1 glazed pottery plumb bob—Eshmunen (Hermopolis Magna Shmun); 8 flint blades and 1 arrow point—east of Assiut, Egypt (gift).

RYERSON, CARRIE, ESTATE OF, Chicago: 3 Navaho blankets and 1 Mexican blanket—United States and Mexico (gift).

SARGENT, HOMER E., Pasadena, California: 6 textiles—2 from Navaho Indians, 3 from Mexico, and 1 from Algeria, North Africa (gift).

SHOOK, MISS RUBY, Norton, Massachusetts: 1 beaded doll, 1 beaded purse—Crow Indians, Montana (gift).

SIMONSON, MRS. E. B., and COLONEL D. F. HITT (deceased), Franklin Park, Illinois: 1 birch bark covered basket with porcupine quill decorations—Deer Park Township, Illinois (gift).

SMEATON, MISS WINIFRED, Ann Arbor, Michigan: 17 hair samples—Iran, Iraq, Anatolia, and Syria (gift).

DEPARTMENT OF BOTANY—ACCESSIONS

ACADEMY OF NATURAL SCIENCES, Philadelphia, Pennsylvania: 1 algal specimen (gift); 321 specimens of United States plants (exchange).

AGUIRRE, GABRIEL, Mexico City, Mexico: 1 plant specimen (gift).

ARNOLD ARBORETUM, Jamaica Plain, Massachusetts: 1,988 plant specimens (exchange).

ARSÈNE, REV. BROTHER G., Santa Fe, New Mexico: manuscript list of Mexican plants (gift).

BADER, MISS JOAN, Toms River, New Jersey: 29 specimens of algae (gift); 10 specimens of algae (exchange).

BAILEY HORTORIUM, Cornell University, Ithaca, New York: 1 plant specimen (gift).

BAILEY, DR. LIBERTY H., Ithaca, New York: 135 photographic prints (exchange).

BARKLEY, DR. FRED A., Missoula, Montana: 32 specimens of algae (gift).

BENKE, HERMANN C., Chicago: 220 specimens of United States plants, 1 negative, 1 photograph (gift).

BOLD, HAROLD C., Nashville, Tennessee: 39 specimens of algae (gift); 17 specimens of algae (exchange).

BORIS FRÈRES E COMPANHIA, Fortaleza, Ceará, Brazil: 2 plant specimens (gift).

BOTANIC GARDENS, Singapore, Straits Settlements: 1 plant specimen (gift).

BOTANISCHES INSTITUT, Munich, Germany: 97 plant specimens (exchange).

BOTANISCHES MUSEUM, Berlin-Dahlem, Germany: 1 photographic print (exchange).

BUTLER UNIVERSITY, Department of Botany, Indianapolis, Indiana: 63 specimens of Indiana plants (exchange).

CANAL ZONE EXPERIMENT GARDENS, Summit, Canal Zone: 3 specimens of plants (gift).

CARNEGIE INSTITUTION OF WASHINGTON, Station for Experimental Evolution, Cold Spring Harbor, New York: 37 specimens of plants from Yucatan (gift).

CENTRO NACIONAL DE AGRICULTURA, San Pedro Montes de Oca, Costa Rica: 427 specimens of Costa Rican plants (gift).

CHAMBERLAIN, DR. CHARLES J., Chicago: 60 specimens of cycads, 6 seeds of nelumbo (gift).

CIFERRI, DR. RAFFAELE, Pavia, Italy: 1 plant specimen (gift).

CLOKEY, IRA W., South Pasadena, California: 6 plant specimens (gift); 2,030 specimens of United States plants (exchange).

CONARD, DR. HENRY S., Grinnell, Iowa: 100 specimens of mosses (gift).

CONSERVATOIRE ET JARDIN BOTANIQUES, Geneva, Switzerland: 1,085 plant specimens (exchange).

CORNELL UNIVERSITY, Department of Botany, Ithaca, New York: 82 specimens of plants from Washington (exchange).

CORNELL UNIVERSITY, Plant Breeding Department, Ithaca, New York: 28 plant specimens (gift).

CRAWFORD, MISS SARA W., Hatton Springs, Arkansas: 1 plant specimen, 3 photographic prints (gift).

DANIEL, REV. BROTHER H., Medellín, Colombia: 139 specimens of Colombian plants (gift).

DEAM, CHARLES C., Bluffton, Indiana: 17 plant specimens (gift).

DEGENER, OTTO, Waialua, Oahu, Hawaiian Islands: 31 specimens of Hawaiian plants (gift).

DEPAUW UNIVERSITY, Greencastle, Indiana: 146 specimens of Honduran plants (exchange).

DEUTZMAN, H. J., St. Louis, Missouri: 11 wood specimens (gift).

DIRECCION GENERAL DE AGRICULTURA, Guatemala City, Guatemala: 2 plant specimens (gift).

DODGE, DR. CARROLL W., St. Louis, Missouri: 8 specimens of algae (gift).

DONES, MATHIAS, Chicago: 3 plant specimens (gift).

DROUET, DR. FRANCIS, Chicago: 782 specimens of Brazilian plants, 338 specimens of algae (gift).

ELETT, G. C., Waterloo, Indiana: 1 photograph (gift).

ELIAS, REV. BROTHER, Barranquilla, Colombia: 184 specimens of Colombian plants (gift).

ESCUELA NACIONAL DE AGRICULTURA, Chimaltenango, Guatemala: 100 specimens of Guatemalan plants (gift).

ESTACION EXPERIMENTAL AGRONOMICA, Santiago de Las Vegas, Cuba: 1 plant specimen (gift).

EYERDAM, WALTER J., Seattle, Washington: 904 plant specimens (exchange).

FARLOW HERBARIUM, Cambridge, Massachusetts: 28 specimens of algae (gift); 938 cryptogamic specimens (exchange).

FIELD, DR. HENRY, Chicago: 73 plant specimens, 1 mespilus tree (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Emil Sella: 46 specimens of Wyoming plants.

Collected by Paul C. Standley and Dr. Julian A. Steyermark: 64 specimens of Illinois plants.

Collected by Paul C. Standley, Dr. Julian A. Steyermark and Dr. Francis Drouet: 443 specimens of algae.

Collected by Dr. Julian A. Steyermark: 903 specimens of Missouri plants.

Collected by Dr. Paul D. Voth, Dr. Julian A. Steyermark, Mrs. Cora Shoop Steyermark, and Dr. Francis Drouet: 50 specimens of algae.

Made in the Department Laboratories: 8 photographic prints of type specimens of plants.

Transferred from the Division of Photography: 7,970 photographic prints.

Purchases: 2,120 cryptogamic specimens; 1,341 plant specimens—Brazil; 3,450 plant specimens—Costa Rica; 183 plant specimens—Ecuador; 712 plant specimens—Mexico; 928 plant specimens—Panama; 233 plant specimens—Peru; 173 plant specimens—United States; 101 plant specimens—Venezuela; 30 photographic prints.

FISHER, GEORGE L., Houston, Texas: 104 plant specimens (gift).

FLORISTS' PUBLISHING COMPANY, Chicago: 6 plant specimens (gift).

FORRER, H., Chicago: 4 plant specimens (gift).

FOSBERG, F. RAYMOND, Philadelphia, Pennsylvania: 260 plant specimens (exchange).

FRENGUELLI, DR. JOAQUIM, La Plata, Argentina: 1 algal specimen (gift).

FREYMUTH, MRS. W. C., River Forest, Illinois: 1 plant specimen (gift).

GARRETT, PROFESSOR ARTHUR O., Salt Lake City, Utah: 70 specimens of Utah plants (gift).

GENTRY, HOWARD SCOTT, Tucson, Arizona: 208 specimens of Mexican plants (gift).

GIFFORD, DR. JOHN C., Coconut Grove, Florida: 1 plant specimen (gift).

GILES, GEORGE H., Wilsonville, Nebraska: 18 specimens of algae (gift); 4 specimens of algae (exchange).

GINZBERGER, DR. AUGUST, Vienna, Germany: 344 specimens of Brazilian plants (gift).

GORDON, MISS BERTHA, Porterville, California: 3 photographic prints (gift).

GRANT, GORDON, Los Angeles, California: 1 specimen of seeds of *Ricinus* (gift).

GRAY HERBARIUM, Cambridge, Massachusetts: 162 specimens of plants (exchange).

GREENMAN, DR. JESSE M., St. Louis, Missouri: 5 specimens of algae (gift).

GUEST, E. R., Kuala Lumpur, Federated Malay States: preserved material of cloves and durian (gift).

GUNTER, GORDON, Palacios, Texas: 2 plant specimens (gift).

HEATH, CHARLES A., Chicago: 1 economic specimen (gift).

HERMANN, PROFESSOR F. J., Washington, D.C.: 237 plant specimens (exchange).

HEWETSON, WILLIAM T., Freeport, Illinois: 2 plant specimens (gift).

HINCKLEY, L. C., Austin, Texas: 25 plant specimens (gift).

HINTON, GEORGE B., Zitacuaro, Michoacan, Mexico: 85 specimens of Mexican plants (gift).

HOLLENBERG, DR. GEORGE J., La Verne, California: 11 specimens of algae (gift).

HOOD, PROFESSOR J. DOUGLAS, Rochester, New York: 6 plant specimens (gift).

HOTTLE, WALTER D., Montgomery, Alabama: 1 plant specimen (gift).

INSTITUTO DE BOTÁNICA DARWINION, San Isidro, Argentina: 386 specimens of plants from Argentina (exchange).

ITO, TOKUMATSU, Chicago: 3 economic specimens (gift).

JARDIM BOTANICO, Rio de Janeiro, Brazil: 33 specimens of Brazilian plants (gift).

JARDIM BOTANICO DE BELLO HORIZONTE, Minas Geraes, Brazil: 2,127 specimens of Brazilian plants (gift).

JOHNSTON, DR. JOHN R., Chimaltenango, Guatemala: 265 specimens of plants from Guatemala (gift).

KANSAS STATE TEACHERS COLLEGE, Hays, Kansas: 307 specimens of Kansas plants (exchange).

KENOYER, PROFESSOR LESLIE A., Kalamazoo, Michigan: 645 specimens of Mexican plants, 2 photographs (gift).

KHANNA, DR. LALIT P., Rangoon, Burma: 96 vials of algae (gift).

KISCHE, LEO R., Columbus, Georgia: 13 plant specimens, 3 wood specimens (gift).

KNOBLOCH, IRVING W., San Juanito, Chihuahua, Mexico: 328 specimens of Mexican plants (gift).

KOCH, CYRIL, Chicago: 12 specimens of conifers (gift).

KONSBERG, A. E., Evanston, Illinois: 1 specimen of fungus (gift).

KRUKOFF, BORIS A., Bronx Park, New York: 292 plant specimens (gift).

KUMMER, MRS. ANNA M., Chicago: 33 plant specimens (gift).

LABORATORIOS DEL MINISTERIO DE AGRICULTURA, San Salvador, Salvador: 7 plant specimens (gift).

LANKESTER, C. H., Cartago, Costa Rica: 1 plant specimen (gift).

LEAL, PROFESSOR ADRIAN RUIZ, Mendoza, Argentina: 32 specimens of plants from Argentina (gift); 66 specimens of plants from Argentina (exchange).

LEGRAND, PROFESSOR DIEGO, Montevideo, Uruguay: 60 specimens of plants from Uruguay (exchange).

LILLICK, LOIS C., Cambridge, Massachusetts: 2 specimens of algae (gift).

LINDER, DR. DAVID H., Cambridge, Massachusetts: 1 algal specimen (gift).

LOOSER, PROFESSOR GUALTERIO, Santiago, Chile: 15 specimens of Chilean plants (gift).

MACMAHON, JOHN, Chicago: 2 economic specimens (gift).

MARONEY, J. E., Chicago: 1 specimen of *Moringa* seeds (gift).

MARSHALL COLLEGE, Huntington, West Virginia: 100 specimens of plants from West Virginia (exchange).

MARTIN, DR. PAUL S., Chicago: 1 plant specimen (gift).

MAYWOOD NURSERIES, Maywood, Illinois: 15 specimens of cultivated conifers (gift).

MEXIA, MRS. YNES, Berkeley, California: 83 specimens of South American plants (gift).

MEYER, PROFESSOR TEODORO, Fontana, Chaco, Argentina: 32 specimens of plants from Argentina (exchange).

MILLE, REV. LUIS, Manabí, Ecuador: 15 specimens of plants from Ecuador (gift).

MISSOURI BOTANICAL GARDEN, St. Louis, Missouri: 345 plant specimens (exchange).

MONTANA STATE UNIVERSITY, Missoula, Montana: 56 specimens of United States plants (exchange).

MONTEIRO DA COSTA, R. C., Belem, Pará, Brazil: 18 specimens of Brazilian plants (gift).

MOORE, GEORGE, Lebanon, Missouri: 126 specimens of Missouri plants (gift).

MOORE, O. G., Brownsboro, Alabama: 2 wood specimens (gift).

MUSÉE PHYSIOGRAPHIQUE DE L'ACADÉMIE POLONAISE DES SCIENCES, Cracow, Poland: 350 specimens of plants from Poland (exchange).

MUSEO ARGENTINO DE CIENCIAS NATURALES, Buenos Aires, Argentina: 51 specimens of plants from Argentina (gift); 11 specimens of algae (exchange).

MUSEO DE HISTORIA NATURAL, Montevideo, Uruguay: 14 plant specimens from Uruguay (exchange).

MUSEO NACIONAL, San José, Costa Rica: 338 specimens of Costa Rican plants (gift).

MUSÉUM NATIONAL D'HISTOIRE NATURELLE (PHANÉROGAMIE), Paris, France: 3,358 plant specimens, 7 specimens of *Welwitschia* (exchange).

NATURHISTORISKA RIKSMUSEET, Stockholm, Sweden: 314 specimens of mosses, 75 specimens of algae (exchange).

NEW YORK BOTANICAL GARDEN, Bronx Park, New York: 707 plant specimens, 470 cryptogamic specimens, 9 photographic prints (exchange).

NORTH DAKOTA AGRICULTURAL COLLEGE, Department of Botany, Fargo, North Dakota: 229 specimens of North Dakota plants (exchange).

PALMER, PROFESSOR CHARLES M., Indianapolis, Indiana: 2 specimens of algae (gift).

PALMER, MISS NEVA, Roswell, New Mexico: 40 plant specimens from New Mexico (gift).

PATRICK, MISS RUTH, Philadelphia, Pennsylvania: 31 specimens of algae (gift).

PEARSALL, GORDON, Riverside, Illinois: 25 specimens of Illinois plants (gift).

PRIOR, MISS SOPHIA, Chicago: 7 specimens of algae (gift).

PUERTO RICO AGRICULTURAL EXPERIMENT STATION, Mayaguez, Puerto Rico: 1 plant specimen (gift).

PURER, MISS E., San Diego, California: 3 plant specimens (gift).

PURPUS, DR. C. A., Zacuapam, Mexico: 1 plant specimen (gift).

RANCHO SANTA ANA BOTANIC GARDEN, Anaheim, California: 50 specimens of California plants (exchange).

ROSENGURTT, PROFESSOR BERNARDO, Montevideo, Uruguay: 220 specimens of plants from Uruguay (gift).

SCONCE, HARVEY, Chicago: 3 wood specimens (gift).

SCULL, DR. ELEANOR, Crown Point, Indiana: 1 fruit of mahogany, 1 wood specimen (gift).

SHERFF, DR. EARL E., Chicago: 306 plant specimens, 133 negatives of type specimens of plants (gift).

SHREVE, DR. FORREST, Tucson, Arizona: 133 plant specimens (gift).

SMITH, AUSTIN, Zarcero, Costa Rica: 100 specimens of Costa Rican plants (gift).

SMITH, ERNEST C., Fort Collins, Colorado: 3 plant specimens (gift).

SMITH, PRESTON, Ottawa, Ohio: 17 specimens of algae (gift).

SOBRINHO, J. VASCONCELOS, Pernambuco, Brazil: 6 plant specimens, 1 wood specimen (gift).

SOLANO, J. V., Lima, Peru: 1 map (gift).

SOUKUP, PROFESSOR J., Puno, Peru: 209 specimens of Peruvian plants (gift).

STANDLEY, PAUL C., Chicago: 154 specimens of plants from Florida, 21 illustrations of plants (gift).

STANFORD UNIVERSITY (DUDLEY HERBARIUM), California: 336 plant specimens (exchange).

STEFFA, MRS. GRACE M., Fox Lake, Wisconsin: 1 plant specimen (gift).

STEYERMARK, MRS. CORA S., Chicago: 1,186 cryptogamic specimens (gift).

STEYERMARK, DR. JULIAN A., Chicago: 537 plant specimens (gift).

STILLINGER, RICHARD, Spokane, Washington: 85 specimens of Idaho plants (gift).

STRICKLAND, J. C., Charlottesville, Virginia: 41 specimens of algae (exchange).

TAFT, DR. C. E., Columbus, Ohio: 1 algal specimen (gift).

TAYLOR, DR. WILLIAM R., Ann Arbor, Michigan: 1 algal specimen (gift); 326 specimens of algae (exchange).

THOMPSON, DR. RUFUS H., Stanford University, California: 1 algal specimen (gift).

UNITED STATES DEPARTMENT OF AGRICULTURE, DIVISION OF PLANT EXPLORATION, Washington, D.C.: 1 plant specimen (gift).

UNITED STATES NATIONAL MUSEUM, Washington, D.C.: 706 plant specimens, 424 photographic prints, 3,104 typewritten descriptions of type specimens of plants (exchange).

UNIVERSIDAD DE CUZCO, Cuzco, Peru: 125 specimens of Peruvian plants (gift).

UNIVERSIDAD DE LA PLATA, INSTITUTO DEL MUSEO, La Plata, Argentina: 211 plant specimens from Argentina (exchange).

UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Los Angeles, California: 3 plant specimens (exchange).

UNIVERSITY OF FLORIDA, AGRICULTURAL EXPERIMENT STATION, Gainesville, Florida: 45 cryptogamic specimens (exchange).

UNIVERSITY OF MICHIGAN, UNIVERSITY MUSEUMS, Ann Arbor, Michigan: 606 plant specimens (exchange).

UNIVERSITY OF TENNESSEE, Knoxville, Tennessee: 208 plant specimens (exchange).

UNIVERSITY OF TEXAS, DEPARTMENT OF BOTANY, Austin, Texas: 720 specimens of Mexican plants (gift).

UNIVERSITY OF WISCONSIN, DEPARTMENT OF BOTANY, Madison, Wisconsin: 103 plant specimens (exchange).

UPHOF, PROFESSOR J. C. T., Winter Park, Florida: 3 plant specimens (gift).

VALERIO, PROFESSOR MANUEL, San José, Costa Rica: 26 specimens of Costa Rican plants (gift).

VARGAS C., DR. CÉSAR, Cuzco, Peru: 262 specimens of Peruvian plants (gift).

VAUGHAN'S SEED STORE, Chicago: 1 plant specimen (gift).

VOTH, DR. PAUL D., Chicago: 2 specimens of algae (gift).

WALKER, DR. JAMES, Chicago: 6 economic specimens (gift).

WEED, ALFRED C., Chicago, Illinois: 1 plant specimen (gift).

WHITE, PROFESSOR ORLAND E., Boyce, Virginia: 70 specimens of Mexican plants (gift).

WITTE MEMORIAL MUSEUM, Austin, Texas: 54 plant specimens from Texas (gift).

WOLCOTT, A. B., Downers Grove, Illinois: 1 plant specimen (gift).

WOLF, REV. WOLFGANG, St. Bernard, Alabama: 8 plant specimens (gift).

WOLLE, PHILIP W., Princess Anne, Maryland: 27 specimens of algae (gift).

WOOD, MERRILL J., Salt Lake City, Utah: 1 economic specimen (gift).

WOYTKOWSKI, FELIX, Lima, Peru: 59 specimens of Peruvian plants (gift).

YALE UNIVERSITY, SCHOOL OF FORESTRY, New Haven, Connecticut: 198

plant specimens (gift); 25 microscopic slides of specimens of tropical woods (exchange).

YORK, ROY J., Chicago: 1 plant specimen (gift).

YUNCKER, PROFESSOR T. G., Greencastle, Indiana: 557 specimens of Honduran plants (gift).

ZETEK, JAMES, Balboa, Canal Zone: 45 specimens of Panama plants (gift).

DEPARTMENT OF GEOLOGY—ACCESSIONS

AMERICAN MUSEUM OF NATURAL HISTORY, New York: cast of *Diatryma* skeleton (exchange).

ASPHALT SHINGLE AND ROOFING INSTITUTE, Chicago: 20 specimens of asphalt roofing (gift).

BARRY, JACK, Portland, Oregon: 1 specimen of opalized wood—Estacada, Oregon (gift).

BOARDMAN, DONALD C., Fillmore, California: 2 specimens of lava and tuff interstratified (gift).

BOWEN, GEORGE W., Chicago: 1 fossil crane leg bone—Oceana County, Michigan (gift).

BRIGHAM, EDWARD M., Battle Creek, Michigan: 7 blue agate specimens—Luna National Forest, New Mexico; 2 concretions—Michigan and New Mexico (gift).

BROX, W. A., Rawlins, Wyoming: 37 chalcedony and agate specimens—Wyoming and Montana (gift).

CHALMERS, JOAN A. and WILLIAM J., Chicago: 1 brilliant cut beryllonite—Paris, Maine (gift).

CHANGNON, HARRY, Chicago: 4 mineral specimens, 6 ore specimens—Colorado (gift).

THE CHICAGO TRIBUNE, Chicago: 1 relief map of North America (gift).

CLEVELAND, F. C., Chicago: 1 specimen of calymene niagarensis—Chicago area (gift).

COLYER, C. G., Sheridan, Wyoming: 16 specimens of fish teeth—near Edgemont, South Dakota (gift).

CURTIS, LLOYD, Lander, Wyoming: 11 specimens of sapphire with damourite in matrix, 3 specimens of nephrite jade—near Lander, Wyoming (gift).

DAKE, H. C., Portland, Oregon: 1 specimen of corundum changing to damourite, 1 geode, 23 almandite crystals and 12 mineral specimens—western United States (gift).

DYCHE MUSEUM, UNIVERSITY OF KANSAS, Lawrence, Kansas: 8 casts of vertebrate fossils (exchange).

EHRMANN, MARTIN, New York: 1 gem aquamarine crystal—Minas Geraes, Brazil (exchange).

FIELD, DR. HENRY, Chicago: 2 specimens of sand—Florida; 2 specimens of beach sand—Copenhagen, Denmark; 3 rock specimens, 1 specimen of sand—Norway and Sweden (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Dr. Henry Field (Field Museum Anthropological Expedition to the Near East—1934): 25 specimens of medicines used in Iraq.

Collected by John R. Millar (Sewell Avery Botanical Expedition to Nova Scotia): 4 gypsum specimens, 1 diatomite specimen—Nova Scotia.

Collected by Bryan Patterson: 7 specimens of fossil fern leaves—Braidwood, Illinois.

Collected by Sharat K. Roy (Sewell Avery Expedition for Physical Geology): 138 physical geology specimens, 25 mineral specimens, 11 rock specimens—United States.

Collected by Dr. A. J. Walcott (Field Museum Expedition to the Pacific Northwest): 193 mineral specimens—Pacific Northwest.

Purchases: 14 meteorites and 3 objects showing damage to garage and automobile by fall of meteorite, 6 tectites—various localities; 1 copy *Rocks and Minerals* partly printed in fluorescent ink.

FLORY, CHARLES H., Bellingham, Washington: 2 specimens of mammoth tusk—Fairbanks, Alaska (gift).

FORBES, P. L., Bend, Oregon: 5 mineral specimens—Oregon (gift).

GORDON, MISS BERTHA, Porterville, California: 1 gillespite specimen, 4 volcanic splatter bombs—California; 4 photographs of crumpled strata and erosion features—Mohave Desert and Death Valley, California (gift).

GRAY, FRED E., Oak Forest, Illinois: 1 specimen of fossil cephalopod—Chicago area (gift).

GREEN, E. E., Manhattan Beach, California: 1 kaolin specimen—San Bernardino County, California (gift).

GREEN, M. T., Bend, Oregon: 1 specimen of chalcedony and quartz tree cast —near Bend, Oregon (gift).

GRESKY, BENEDICT, Chicago: 36 specimens of rare metals, 3 norbide specimens (gift).

GRISWOLD, MRS. KEITH, Evanston, Illinois: 9 graphic granite specimens—North Carolina (gift).

GROESBECK, DR. M. J., Porterville, California: 2 gem sphalerite specimens —Bisbee, Arizona (exchange).

HIGLEY, PROFESSOR L. A., Wheaton, Illinois: 12 manganese concretions—south of Buffalo, South Dakota; 6 photographs of calico rock (gift).

HILTON, WILLIAM B. and G. BRADLEY HARRIS, Rifle, Colorado: 66 fossil plants—Rifle Gap, Colorado (gift).

HINE, A. R., Portland, Oregon: 33 agate specimens—Oregon (gift).

ITO, TOKUMATSU, Chicago: 10 coal specimens, 5 oil shale specimens—Fushun, Manchukuo (gift).

JENNINGS, JOHN W., Eureka Springs, Arkansas: 2 lithographic limestone specimens, 2 feldspathic shale specimens, 1 bryozoan specimen, 2 flint specimens—Eureka Springs, Arkansas; 1 slate specimen—northern Arkansas (gift).

LAZELL, DR. E. W., Portland, Oregon: 1 moss agate, 11 slides of fossil wood—Oregon (gift).

LOOK, ALFRED A., Grand Junction, Colorado: 1 vertebrate fossil, 2 fossil teeth—Colorado (gift).

MCGREW, PAUL O., Chicago: 3,000 vertebrate fossils (Tertiary micro-mammals), 2 invertebrate fossils—western Nebraska (gift).

MCKINLEY, WILLIAM C., Peoria, Illinois: 12 glacial gems—Peoria, Illinois (gift).

MCLEOD, C. W., Michigan City, Indiana: 30 claystones—Michigan City, Indiana (gift).

MACMILLAN, DUNCAN, Chicago: 34 invertebrate fossils—Sag Canal, Blue Island, Illinois (gift).

MCPHERSON, C. H., Pana, Illinois: partial skeleton of badger, *Taxidea taxus*—gravel pit near Witt, Illinois (gift).

MARQUETTE GEOLOGISTS' ASSOCIATION, Chicago: 17 glacial pebbles, 6 marcasite concretions—Wilmington and Coal City, Illinois (gift).

MENZEL, WILLIAM E., Chicago: 4 pyrite concretions, 1 chalcedony concretion, 19 minerals, 4 geological specimens—United States (gift).

MINERALOGIST MAGAZINE, Portland, Oregon: 22 mineral specimens—Oregon (gift).

MORRISON, MORRIS G., Evanston, Illinois: 4 specimens building stones, 1 basalt specimen—Palestine (gift).

MUSEO ARGENTINO DE CIENCIAS NATURALES, Buenos Aires, Argentina: 5 casts of fossil birds (exchange).

NELSON, WALTER, Portland, Oregon: 1 opalized wood specimen—Washington (gift).

NORDEN, MRS. BEATRICE, Chicago: 1 cinnabar specimen, 1 verite specimen—Arkansas (gift).

PAPE, JOHN C., Los Angeles, California: 6 specimens of massive hornblende, 1 hornblendite specimen—California (gift).

PEABODY MUSEUM, YALE UNIVERSITY, New Haven, Connecticut: 1 cast of skull and lower jaws of *Oligobunis darbyi* (exchange).

PERRY, STEWART H., Adrian, Michigan: 4 meteorites—United States (exchange).

PETERSON, PETER, Portland, Oregon: 8 agate specimens—Oregon (gift).

PITTS, WILLIAM B., Sunnyvale, California: plaque of 25 chiastolite sections, 42 specimens orbicular jasper—California (gift).

PRINCETON UNIVERSITY, Princeton, New Jersey: 177 Miocene shell specimens —Yorktown, Pennsylvania (exchange).

QUINN, C. A., Ainsworth, Nebraska: 1 land gastropod—Rifle, Colorado (gift).

RENTON, J. LEWIS, Portland, Oregon: 55 mineral specimens—Oregon and California (gift).

RIGGS, ELMER S., Chicago: 46 specimens of Miocene and Pliocene mammals, 11 skulls and one incomplete skeleton of modern animals—various localities (gift).

RYERSON, CARRIE, ESTATE OF, Chicago: 44 pieces of jewelry (gift).

SCHIEFER, H. V., Cleveland Heights, Ohio: 1 jasper specimen—Flint Ridge, Ohio (gift).

SCHNEIDER, A. J. and RAY, Portland, Oregon: 2 agate specimens—Madras, Oregon (gift).

SHEAD, J. O., Norman, Oklahoma: 9 specimens of barite roses—Norman, Oklahoma (gift).

SLOCOM, R. G., Riverside, Illinois: 1 cinnabar specimen (gift).

SMITH'S AGATE SHOP, Portland, Oregon: 1 iris agate specimen—Oregon (gift).

SNYDER, S. M., Metamora, Illinois: 1 petroleum-filled geode—Tyson Creek, near Niota, Illinois (gift).

SPENCE, HUGH S., Ottawa, Canada: 3 specimens of asterism in phlogopite—Frontenac County, Ontario (gift).

STANDARD OIL COMPANY (Indiana), Chicago: 14 specimens of petroleum products (gift).

STRECKER, J. K., JR., Waco, Texas: 6 specimens of *Exogyra arietina*—Hog Creek, Texas (gift).

SWETT, W. O., Chicago: 1 specimen of clay-eater's clay (Chagasta)—Jaltipan, Oaxaca, Mexico (gift).

TEXAS PLANNING BOARD AND UNIVERSITY OF TEXAS, Austin, Texas: 11 slabs of polished marble; 4 discs of polished granite—Texas (gift).

TREVETT, MISS ANN, Casper, Wyoming: 1 uranophane specimen—Lusk, Wyoming (gift).

VON DRASEK, FRANK, Cicero, Illinois: 20 mineral specimens—New Mexico and Arkansas (gift); 38 pebbles of gem peridot, 9 moonstone specimens, New Mexico (exchange).

WALTER, CLARK W., Chicago: 12 minerals, 3 fossils—various localities (gift).

WEISS, PAUL, Denver, Colorado: 1 polished specimen fossil wood, 1 polished specimen red chalcedony—Colorado (gift).

WHARTON, J. R., Roseburg, Oregon: 1 specimen chalcedony—near Roseburg, Oregon (gift).

WHEATON COLLEGE, Wheaton, Illinois: 1 specimen calico rock—Buffalo Gap, South Dakota (exchange).

YAEGER, R. A., Kankakee, Illinois: 2 specimens Carboniferous fossils—Fort Dodge, Iowa (gift).

YOUNG, F. S., Portland, Oregon: 11 specimens of agate and chalcedony—Oregon (gift).

DEPARTMENT OF ZOOLOGY—ACCESSIONS

AMERICAN CONSUL, Warsaw, Poland: 70 marine bivalves—Baltic Sea (gift).

AMSCHLER, DR. WOLFGANG, Zeiyarn bei Cronach, Germany: 543 beetles—Tyrol, Austria (gift).

ANDERSON, CHRIS M., Miami, Florida: 1 scorpion—Miami, Florida (gift).

BALEY, JAMES, Chicago: 1 rattlesnake—Beverly Shores, Indiana (gift).

BARBER, C. M., Hot Springs, Arkansas: 1 shrew, 10 salamanders, 4 frogs, 9 snakes, 3 lizards, 4 turtles—Arkansas (gift).

BARNES, DR. VENTURA, Caracas, Venezuela: 10 frogs and toads, 3 lizards, 6 snakes—Yaracuy, Venezuela (exchange).

BARRY, RICHARD E., Chicago: 2 beetles—Mill Brook, Illinois (gift).

BARTON, WILLIAM, Chicago: 1 white-throated sparrow—Chicago (gift).

BASS BIOLOGICAL LABORATORY, Englewood, Florida: 2 shark jaws and 8 teeth—Englewood, Florida (gift).

BECKER, ROBERT H., Lake Bluff, Illinois: 4 fishes—Waukegan, Illinois (gift).

BEECHER, WILLIAM J., Chicago: 1 ground squirrel, 1 red-headed woodpecker—Illinois (gift).

BENAK, MRS. FRANK, Chicago: 1 spider with young—Chicago (gift).

BIRKS, THOMAS K., Chicago: 1 milk snake—Okee, Wisconsin (gift).

BLAIR, W. FRANK, Ann Arbor, Michigan: 3 white mice—White Sands Region, New Mexico (gift).

BLANCHARD, DR. FRIEDA COBB, Ann Arbor, Michigan: 896 snakes—various localities (exchange).

BOISMENUE, P., Columbia, Illinois: 33 carp bones—Columbia, Illinois (gift).

BONK, KENNETH, Homewood, Illinois: 1 milk snake—Homewood, Illinois (gift).

BORELL, A. E., Santa Fe, New Mexico: 1 free-tailed bat, 1 toad, 4 lizards, 5 snakes, 2 turtles—Texas (gift).

BOULTON, RUDYERD, Chicago: 1 immature woodcock—Indiana; 1 downy killdeer—Illinois; 18 bird skins—Mississippi; 11 portraits of ornithologists (gift).

BOYD, MISS LOIS, Muskegon, Michigan: 1 pharyngeal bone of drumfish—shore of Lake Michigan (gift).

BROMUND, E. FRED, Ann Arbor, Michigan: 24 salamanders, 14 frogs, 12 insects—Michigan (gift).

BURT, DR. CHARLES E., Winfield, Kansas: 1 brown bat, 2 salamanders, 2 frogs, 19 lizards, 2 snakes—various localities (exchange).

BURTON, ROBERT, Evanston, Illinois: 1 beetle necklace—Brazil (gift).

BUXTON, R. W., Evanston, Illinois: 5 frogs, 5 lizards, 5 snakes—McGill County, New Mexico (gift).

CAMRAS, SIDNEY, Chicago: 4 birds—Cook County, Illinois (gift).

CARNEGIE MUSEUM, Pittsburgh, Pennsylvania: 1 *Anolis*—British Honduras (exchange).

CAZIER, MONT A., Berkeley, California: 4 beetles—California (gift).

CEFALIE, MRS. PHILLIS, Chicago: 2 turtles, 1 fresh-water leach—Cook County, Illinois; 6 salamanders, 1 geographic turtle—Cass County, Michigan (gift).

CHADWICK, R. W., Chicago: 1 red-winged blackbird, 2 savanna sparrows—Chicago (gift).

CHICAGO POLICE DEPARTMENT, Chicago: 1 badger—Chicago (gift).

CHICAGO ZOOLOGICAL SOCIETY, Brookfield, Illinois: 35 mammals, 143 birds, 12 birds' eggs, 16 snakes, 3 lizards, 1 turtle—various localities (gift).

CLARK, PHILIP, Chicago: 4 snakes—Port Dickson, Federated Malay States: 2 box tortoises—United States (gift).

CLARKE-MACINTYRE, WILLIAM, Baños, Ecuador: 26 insects—Ecuador (gift).

CLAWSON, MRS. M. DON, Beirut, Syria: 24 bird skins—Iraq and Syria (gift).

COLORADO MUSEUM OF NATURAL HISTORY, Denver, Colorado: 2 mounted downy golden eagles—Colorado (gift).

CONOVER, BOARDMAN, Chicago: 67 bird skins—various localities (gift); 2 bird skins—Korea and Ecuador (exchange).

COOPER, B., Moshi, Tanganyika: 24 bird skins—Tanganyika (gift).

CORWIN, CHARLES A., Chicago: 15 sets of eggs—Laysan Island (gift).

COX, MRS. THOMAS J., Chicago: 5 corals—Borneo (gift).

CROSS, DR. J. C., Kingsville, Texas: 2 lizards, 2 snakes, 1 turtle—Kingsville, Texas (gift).

CURTIS, E. B., Phantom Grove, Florida: 1 worm lizard—Phantom Grove, Florida (gift).

DAHLGREN, DR. B. E., Chicago: 4 turtle eggs—Santarem, Brazil (gift).

DAVIS, D. DWIGHT, Naperville, Illinois: 2 mammals—Illinois (gift).

DEMING, G. S., Chicago: 25 snakes—Chicago (gift).

DIAL, MISS ROSE, Chicago: 1 brown creeper—Chicago (gift).

DICKEY COLLECTION, DONALD R., Pasadena, California: 994 bird skins—El Salvador (gift).

DOMINION MUSEUM, New Zealand: 5 boxes of accessories for kiwi group—New Zealand (gift).

DREUTZER, CARL, Chicago: 6 seal skins with skulls, 1 semi-fossilized musk-ox skull—Alaska (gift).

ENNIS, MISS MARGARET, Chicago: 9 bats, 4 toads, 32 lizards, 1 snake—Copan, Honduras (gift).

ENZENBACHER, ALBERT A., Chicago: 43 snakes, 6 turtles—McHenry, Illinois (gift).

EXLINE, A. W., San Jose, Mindoro, Philippine Islands: 6 crocodile skulls—Philippine Islands (gift).

FALCK, EUGENE G. F., Chicago: 2 shells—La Porte County, Indiana (gift).

FELLOWS, WILLIAM K., Chicago: 1 yellow-billed cuckoo—Chicago (gift).

FERRIS, WILLIAM K., Stanford University, California: 4 beetles—Lake Tahoe, California (exchange).

FIELD, DR. HENRY, Chicago: 9 mammals, 1 owl, 5 toads, 2 newts, 12 water snakes—Leicestershire, England; 1 toad, 158 fishes, 37 insects, 57 marine invertebrates—Morayshire, Scotland; 13 mammals, 4 bird skins, 2 lizards, 8 snakes—Iraq; 1 glass snake—Georgia; 162 fishes, 10 crustaceans—Boca Grande, Florida (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Emmet R. Blake (Stanley Field Expedition to British Guiana and Brazil): 68 mammals, 800 bird skins, 34 amphibians and reptiles, 125 fishes—Brazil.

Collected by John R. Millar (Sewell Avery Botanical Expedition to Nova

Scotia): 3 frogs, 2 toads, 1 garter snake —Handy Cove, Nova Scotia.

Collected by Dr. Wilfred H. Osgood, F. W. Gorham, and W. F. Nichols (Field Museum Expedition to New Mexico): 242 mammal skins with 244 skulls and 17 skeletons, 61 bird skins, 38 amphibians and reptiles—New Mexico; 3 bird skins—Montezuma County, Colorado.

Collected by Colin C. Sanborn (Field Museum Expedition to Scotland): 11 mammal skins and skulls, 10 red grouse skins, 1 black cock skin, 2 bird skeletons, 4 boxes of accessories—Scotland.

Collected by Karl P. Schmidt, C. M. Barber and John M. Schmidt (Field Museum Expedition to Arkansas): 258 amphibians and reptiles—Arkansas.

Purchases: 6,640 bird skins—East Africa; 5 codfish—Atlantic Ocean; 146 frogs, 176 lizards, 26 snakes—Australia and Tasmania; 4 free-tailed bats—San Diego, California; 19 frogs, 8 lizards, 3 snakes—Colombia; 150 frogs, 41 lizards, 24 snakes, 26 bird skins—Ecuador; 19 mammal skins—Ecuador; 8 worm lizards—Florida; 103 amphibians and reptiles, 4 fishes—Laurel, Maryland; 154 mammal skins with 152 skulls—Guerrero, Mexico; 89 mammal skins with 74 skulls, 28 bird skins, 502 amphibians and reptiles—Nuevo Leon, Mexico; 1 white-tailed deer—Minnesota; 10 pocket gophers with skins and skulls—Texas City, Texas; 32 bats—Venezuela and Ecuador; 42 bats—West Indies; 160 hawks and owls, 28 other bird skins, 7 rhea eggs—various localities (Leslie Wheeler Fund).

FIELD, STANLEY, Lake Forest, Illinois: 1 ruby-throated hummingbird—Lake Bluff, Illinois (gift).

FLEMING, ROBERT L., Mussoorie, India: 17 mammal skins and skulls, 7 bird skins—India (gift).

FOSTER, W. H., McAllen, Texas: 20 wasps—McAllen, Texas (gift).

FRANZEN, ALBERT J., Chicago: 1 meadow lark—Elgin, Illinois; 1 green snake—Chicago (gift).

GALBREATH, EDWIN C., San Diego, California: 4 lizards—San Diego, California (gift).

GENERAL BIOLOGICAL SUPPLY HOUSE, Chicago: 1 salamander—New Hartford, Missouri; 2 burrowing eels—Florida; 5 sea anemones—Atlantic and Pacific Oceans (gift).

GORE, CHARLES, Makenda, Illinois: 1 copperhead snake—Makenda, Illinois (gift).

GRANT, GORDON, Los Angeles, California: 25 amphibians and reptiles, 9 killifish, 161 insects and allies, 26 lower invertebrates—California; 1 centipede —Hawaiian Islands (gift).

GREEN, N. BAYARD, Elkins, West Virginia: 18 salamanders, 11 frogs, 2 snakes—West Virginia (exchange).

GREGG, CLIFFORD C., Chicago: 2 mounted ruffs (gift).

GUERET, EDMOND N., Chicago: 5 bird skeletons—France (gift).

GUERNSEY, GUY, South Haven, Michigan: 1 Baltimore oriole—South Haven, Michigan (gift).

GUILLAUDEU, ROBERT, Chicago: 2 water snakes—Chicago (gift).

HAAS, DR. FRITZ, Chicago: 42 mollusks—Chicago (gift).

HAAS, DR. FRITZ and MISS EDITH, Chicago: 2 garter snakes—Pell Lake, Wisconsin (gift).

HARDEN, L. E., Chicago: 1 albino opossum skin and skull—Glencoe, Illinois (gift).

HARTELIUS, BERTIL, Homewood, Illinois: 1 armadillo skull—Del Rio, Texas; 1 garter snake—Lansing, Michigan (gift).

HAWKINS, DR. BEN H., Mena, Arkansas: 2 diamond-backed rattlesnakes —Minna, Arkansas (gift).

HAWKINS, RAY, Chicago Heights, Illinois: 1 black chicken snake—Hartford, Michigan (gift).

HEDGE, J. W., La Grange, Illinois: 4 beetles—La Grange, Illinois (gift).

HORBACK, HENRY, Chicago: 1 red bat skin—Chicago (gift).

KANNAPEL, W., Chicago: 1 yellow-billed cuckoo—Cook County, Illinois (gift).

KELLOGG BIRD SANCTUARY, Battle Creek, Michigan: 1 goose (gift).

KENNEDY, DR. W. P., Baghdad, Iraq: 4 lizards, 2 snakes, 2 turtle eggs, 2 fishes—Iraq (gift).

KING, J. ANDREWS, Lake Forest, Illinois: 27 bird skins—Guatemala (gift).

KRAUTH, EMIL, Hebron, North Dakota: 6 butterflies—Mt. Adams, Washington (gift).

KORODA, DR. NAGAMICHI, Tokyo, Japan: 1 bat skin and skull—Japan (exchange).

LAKE, WILLIAM E., Chicago: 1 red bat—Chicago (gift).

LAUCK, ALBERT G., Alton, Illinois: 18 butterflies—Colorado and Wyoming (gift).

LAURENT, DR. PAUL, Trolard Taza, Algeria: 12 mammals in alcohol—France and North Africa (exchange).

LEES, ARTHUR S., Oak Lawn, Illinois: 5 beetles—Oak Lawn, Illinois (gift).

LERNER, MICHAEL, New York: 1 broadbill swordfish (gift).

LETL, FRANK, Homewood, Illinois: 1 cicada—Harvey, Illinois (gift).

LINCOLN PARK ZOO, Chicago: 1 monkey, 3 lizards, 15 snakes, 1 turtle—various localities (gift).

LINDAHL, J. C., Hot Springs, Arkansas: 1 chicken snake—Arkansas (gift).

LITTLE, MRS. JOHN B., Chicago: 1 nighthawk—Chicago (gift).

MCALPINE, WILBUR S., Birmingham, Michigan: 4 butterflies—Michigan (gift).

MCCUTCHEON, JOHN T., Chicago: 1 porcupine fish—Salt Cay, Bahama Islands (gift).

MCGREW, PAUL O., Chicago: 84 bats and 2 rats in alcohol, 2 mammal skeletons, 33 lizards, 3 snakes, 1 spider—Honduras (gift).

MANDEL, LEON, Chicago: 1 shark—La Mulata, Cuba (gift).

MARIA, BROTHER NICEFORO, Bogotá, Colombia: 2 toads, 10 frogs, 5 lizards, 15 snakes—Colombia (gift).

MARSHALL, ERNEST B., Laurel, Maryland: 1 fresh-water leech—Laurel, Maryland (gift).

MARSHALL, WALTER, Chicago: 1 starling—Chicago (gift).

MAZUR, ANTON, Chicago: 2 bats—Chicago (gift).

MOORE, G. E., Lebanon, Missouri: 1 wood rat in alcohol—Webster County, Missouri (gift).

MORRISON, A. R. G., Farnham, Surrey, England: 8 mammal skins and skulls—Peru (gift).

MOYER, JOHN W., Chicago: 4 woodcock eggs and nests—Indiana (gift).

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Massachusetts: 219 snake heads—Panama (exchange).

MUSSELMAN, T. E., Quincy, Illinois: 1 albino English sparrow—Quincy, Illinois (gift).

NELSON, DR. HAROLD, Chicago: 21 bats in alcohol, 2 lizards, 5 scorpions—Egypt (gift).

NEMEC, MISS CLAIRE, Chicago: 1 crayfish—Waukegan, Illinois (gift).

NICHOLS, WALTER F., Pasadena, California: 1 bat skin and skull—Mendocino County, California (gift).

NISBETT, LIEUTENANT JAMES M., Eagleton, Arkansas: 1 canebrake rattlesnake—Rich Mountain, Arkansas; 3 salamanders, 1 lizard, 9 snakes—Eagleton, Arkansas (gift).

NORBY, D. G., Dwight, Illinois: 1 scarlet tanager—Dwight, Illinois (gift).

OLSON, ANDREW, Elburn, Illinois: 1 snake—Elburn, Illinois (gift).

OROZCO, J. M., San Pedro Montes de Oca, Costa Rica: 5 fly larvae—Costa Rica (gift).

ORR, PHIL C., Santa Barbara, California: 1 chicken skeleton (gift).

PARK, DR. ORLANDO, Evanston, Illinois: 1 salamander, 1 lizard, 4 snakes—Oaxaca, Mexico; 45 moths—New Zealand (gift).

PATTERSON, BRYAN, Chicago: 1 bird skeleton, 65 sets of birds' eggs—Iver Village, England; 1 starling, 2 frogs—various localities; 54 marine mollusks—Mazatlan, Mexico (gift).

PEARSON, DR. J. F. W., Coral Gables, Florida: 5 snakes—Bahama Islands (gift).

PFLUEGER, AL, Miami, Florida: 2 duck skins, 7 turtles, 1 tuna fish—Florida (gift).

PITELKA, FRANK, Urbana, Illinois: 1 red phalarope—Waukegan, Illinois (gift).

RIBNIKER, M., Chicago: 1 golden-crowned kinglet—Chicago (gift).

ROBERTS, COLONEL WARREN R., Chicago: 1 mounted swordfish—Florida (gift).

ROY, SHARAT K., Chicago, and JOHN T. CROWELL, Isle au Haut, Maine: 113 marine invertebrates—Maine (gift).

RUDNICK, DR. and MRS. PAUL, Fort Davis, Texas: 2 pink rattlesnakes—Mount Locke, Texas (gift).

RUHE, LOUIS, New York: 3 Barbary apes (gift).

SABROSKY, PROFESSOR CURTIS W., East Lansing, Michigan: 1 butterfly—Mexico (exchange).

SANBORN, COLIN C., Highland Park, Illinois: 4 small mammal skins, 1 mouse skeleton—Abbey Wood, England (gift).

SANDERSON, DR. MILTON, Fayetteville, Arkansas: 2 beetles—Alabama (gift).

SCHMIDT, JOHN M., Homewood, Illinois: 2 lizards—Tremont, Indiana (gift).

SCHMIDT, KARL P., Homewood, Illinois: 21 salamanders, 5 lizards, 16 snakes, 2 turtles—Illinois and Arkansas (gift).

SCHNEIDER, R. A., Kankakee, Illinois: 1 snake, 1 turtle—Kankakee, Illinois (gift).

SCHREIBER, JACK, Chicago: 1 American redstart, 2 turtle eggs, 1 mountain bullhead—various localities (gift).

SHEDD AQUARIUM, JOHN G., Chicago: 2 albino axolotl, 13 fishes—various localities (gift).

SHOCKLEY, CLARENCE, Terre Haute, Indiana: 2 wood frogs—Indiana (gift).

SHOEMAKER, DR. HURST, Stanford University, California: 248 fishes—various localities; 14 lower invertebrates—Illinois and Indiana (gift).

SMILEY, DAVID CHARLES, Neches, Texas: 6 beetles—Mussoorie, India (gift).

SMITH, MRS. HERMON DUNLAP, Lake Forest, Illinois: 50 bird skins—Mt. Meru and Mt. Kilimanjaro, Africa (gift).

SMITH, DR. H. N., Chicago: 2 bats in alcohol—Campeche, Mexico (gift).

SNYDER, DR. L. H., Seoul, Korea: 4 chipmunks, 5 salamanders—Songdo, Korea (exchange).

STEYERMARK, DR. JULIAN A., Chicago: 3 lizards, 5 snakes, 1 turtle, 11 fishes, 1 centipede—Missouri (gift).

STURGIS, R. S., Winnetka, Illinois: 31 mammal skins and skulls—Fremont County, Wyoming (gift).

TANNER, DR. VASCO M., Provo, Utah: 1 gila monster, 6 snakes—Utah (exchange).

TAYLOR, DR. WALTER P., College Station, Texas: 4 frogs, 13 lizards, 3 snakes, 1 turtle—Texas (exchange).

THORP, MRS. B. J., Chicago: 1 ruby-crowned kinglet—Chicago (gift).

TONER, G. C., Gananoque, Ontario: 6 fishes, 2 fresh-water mollusks—Leeds County, Ontario (exchange).

UNITED STATES NATIONAL MUSEUM, Washington, D.C.: 1 elephant shrew in alcohol—Kenya Colony, Africa; 1 toadfish—Gulfport, Florida; 414 fishes—Panama and Canal Zone (exchange).

UNIVERSITY OF CHICAGO, Chicago: 1 ground squirrel and 4 bats in alcohol, 8,424 fishes, 11 lower invertebrates—various localities (gift).

UNIVERSITY OF MIAMI, Coral Gables, Florida: 3 turtles—Bahama Islands (gift).

UNIVERSITY OF OKLAHOMA, Norman, Oklahoma: 1 salamander, 4 turtles—Oklahoma (exchange).

VAN BLAIR, D. I., Chicago Heights, Illinois: 1 fox squirrel (gift).

WALTER, CLARK W., Chicago: 1,200 mollusks, 1 Baltimore oriole's nest (gift).

WALTON, MRS. CLARA K., Highland Park, Illinois: 6 birds—Highland Park, Illinois (gift).

WEED, A. C., Chicago: 1 mollusk—Fontana, Wisconsin (gift).

WHITE, MRS. ROBB, Thomasville, Georgia: 22 insects—Thomasville, Georgia (gift).

WOLFE, CAPTAIN L. R., Chicago: 1 golden eagle skin—Kwangju, Korea (gift).

WONDER, FRANK C., Chicago: 3 leopard frogs, 1 water snake—Reelfoot Lake, Tennessee (gift).

WOODCOCK, H. E., Chicago: 1 beetle—Brazil; 28 butterflies and 1 moth—France (gift).

WOODS, LOREN P., Evanston, Illinois: 2 bats—Kentucky (gift).

RAYMOND FOUNDATION—ACCESSIONS

FIELD MUSEUM OF NATURAL HISTORY:

From Division of Photography: 590 lantern slides (miscellaneous subjects).

AMERICAN MUSEUM OF NATURAL HISTORY, New York: 1 reel 35-mm. film entitled *Man Versus Beast*, to complete the *Simba* series (gift).

HIGLEY, PROFESSOR L. A., Wheaton, Illinois: 9 35-mm. natural color slides of calico rock, South Dakota (gift).

DIVISION OF PHOTOGRAPHY—ACCESSIONS

FIELD, DR. HENRY, Chicago: 2 negatives of general views in Rome, Italy.

FIELD MUSEUM OF NATURAL HISTORY:

Made by Division of Photography: 6,340 prints, 1,611 negatives, 1,053 lantern slides, 132 enlargements, 16 transparencies, and 74 transparent labels.

Developed for expeditions: 255 negatives.

LIBRARY—ACCESSIONS

List of Donors of Books

INSTITUTIONS

American Society of the French Legion of Honor, New York.

American Society for Testing Materials, Philadelphia, Pennsylvania.

Arizona Archaeological and Historical Society, Tucson, Arizona.

Astronomische Gesellschaft, Leipzig, Germany.

Atchison, Topeka and Santa Fé Railway Company, Chicago.

Atlantic Monthly, Boston, Massachusetts.

Australia, Commonwealth of Canberra, Australia.

Bibliografia Mexicana, Mexico City, Mexico.

Black Diamond, Chicago.

Board of Trade, Chicago.

Carnegie Corporation of New York.

Carnegie Institution, Washington, D.C.

Carnegie United Kingdom Trust, Dunfermline, Fife, Scotland.

Chase Bank, New York.

Chicago Community Trust, Chicago.

Chinese Cultural Society, New York.

Ciba Company, Incorporated, New York.

Contribuciones a la Natural Historia Colombiana, Barranquilla, Colombia.

Cranmore Ethnographical Museum, Chislehurst, England.

Georgian Historical Society, Hertford, England.

Gesundheits Ingénieur, Munich, Germany.

Hull Scientific and Field Naturalists' Club, Hull, England.

Imperial Bureau of Pastures and Forage Crops, Aberysstrvyth, Wales, Great Britain.

Institute of Plant Systematics and Genetics, Upsala, Sweden.

Instituto Cubano de Estabilización del Café, Havana, Cuba.

Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.

Japan Institute, New York.

Knox College, Galesburg, Illinois.

Massachusetts Institute of Technology, Cambridge, Massachusetts.

Mundelein College for Women, Chicago.

Musée des Beaux Arts, Strasbourg, France.

National Almanac and Year Book, Chicago.

Nationalmuseet Etnografiske Samling, Copenhagen, Denmark.

New Sweden Tercentenary, Wilmington, Delaware.

Oglethorpe University, Georgia.

Oriental Institute, Warsaw, Poland.

Pan-American Society of Tropical Research, New Orleans, Louisiana.

Quarrie Corporation, Chicago.

Revista di Biologia Coloniale, Rome, Italy.

Revista da Flora Medicinal, Rio de Janeiro, Brazil.

Rolph, W. R. and Sons, Hobart, Australia.

Royal Empire Society, London, England.

Ryerson, Carrie, Estate of, Chicago.

School of African Studies, Capetown, Africa.

Snowy Egret, Battle Creek, Michigan.

Società Anonima d'Arti Grafiche San Bernardino, Siena, Italy.

Societas Respublicana Geographicae Kiachtuensis, Moscow, U.S.S.R.

Société pour la Protection de la Nature, Moscow, U.S.S.R.

University Library, Leiden, Holland.

Vaughan's Seed Store, Chicago.

Ward's Natural Science Establishment, Rochester, New York.

Wheat Flour Institute, Chicago.

Works Progress Administration, Federal Projects, Chicago.

You and Industry Library, New York.

Zion National Park, Utah.

INDIVIDUALS

Abbott, Cyril E.

Arctowski, Professor Henryk, Lwow, Poland.

Ashbrook, Frank G., Washington, D.C.

Baker, Frank C., Urbana, Illinois.

Baldwin, Gordon C., Tucson, Arizona.

Beasley, H. G.

Beatty, John D., Pittsburgh, Pennsylvania.

Beni, Dr. Gerhard, Munich, Germany.

Bergsøe, Paul, Copenhagen, Denmark.

Bock, Professor Sixten, Stockholm, Sweden.

Born, Dr. Wolfgang, St. Louis, Missouri.

Borragan, Maria Teresa, Mexico City, Mexico.

Boudy, Dr. Emilie, Vienna, Germany.

Bourret, René, Hanoi (Tonkin), Indo-China.

Bruggeman, L. A., Buitenzorg, Java.

Buffle, J. Ph., Geneva, Switzerland.

Cartwright, B. W., Winnipeg, Canada.

Caso, Dr. Alfonso, Mexico City, Mexico.

Cazin, M. A., Berkeley, California.

Cole, Dr. Fay-Cooper, Chicago.

Coleman, Mrs. Anna, Chicago.

Comfort, H., Florence, Italy.

Condit, Lester, Chicago.

Conover, H. B., Chicago.

Cordero, E. H., Montevideo, Uruguay.

Dahlgren, Dr. B. E., Chicago.

Davis, D. Dwight, Chicago.

Delage, Franck, Périgord, France.

De Sushko, Dr. Alexander, Chicago.

Douglass, A. E., Tucson, Arizona.

Drouet, Dr. Francis, Chicago.

Dumond, Louis A., Chicago.

Dunn, E. J., Victoria, Australia.

Feruglio, Egidio, Chubert, Argentina.

Field, Dr. Henry, Chicago.

Field, Stanley, Lake Forest, Illinois.

Frenguelli, Dr. Joaquin, La Plata, Argentina.

Friesser, Julius, Chicago.

Gadeau de Kerville, Henri, Rouen, France.

Gaines, Mildred, Chicago.

Galbraith, A. V., Melbourne, Australia.

Galopin, R., Geneva, Switzerland.

Gerhard, William J., Chicago.

Goldstein, Mathilde, Chicago.

Goldthwait, J. W., Hanover, New Hampshire.

Goodrich, Calvin, Ann Arbor, Michigan.

Gregg, Clifford C., Chicago.

Gustafson, David, Chicago.

Haas, Dr. Fritz, Chicago.

Harte, H. B., Chicago.

Hermanson, Helen, Chicago.

Hochreutiner, Dr. B. P. G., Geneva, Switzerland.

Holmberg, Eduardo Ladislao, San Isidro, Argentina.

Jenks, Dr. Albert Ernest, Minneapolis, Minnesota.

Jusserand Memorial Committee, New York.

Kelso, Leon, Ithaca, New York.

Kent, Charles A., Evanston, Illinois.

Knoche, Herman, San José, California.

Laws, Dr. H. J., Leiden, Holland.

Lazell, Dr. E. W., Portland, Oregon.

Lewis, Dr. Albert B., Chicago.

Loth, Edward, Warsaw, Poland.

Mabry, G. A., Houston, Texas.

Macdonald, Augustin S., Oakland, California.

Macdonald, Elizabeth Stone, Boston, Massachusetts.
Martin, Dr. Paul S., Chicago.
Martin, Richard, Chicago.
Mazur, Anthony, Chicago.
Menzel, William E., Chicago.
Michelet, Simon, Washington, D.C.
Moldenke, Dr. Harold N., New York.
Morrison, Mrs. W. A., Los Angeles, California.
Murray-Aaron, Dr. Eugene, Chicago.

Nabours, Robert K., Manhattan, Kansas.
Nininger, H. H., Denver, Colorado.
Nobro, Augusto, Oporto, Portugal.
Nylander, Olof O., Caribou, Maine.

Okubo, Marquis Toshitake, Marnsunehi, Kojimachi-ku, Tokyo, Japan.
Oliveira Roxo, Mathias G., Rio de Janeiro, Brazil.
Orr, Phil C., Chicago.
Osgood, Dr. Wilfred H., Chicago.
Ouchi, Yoshio, Shanghai, China.

Palmer, Harold S., Honolulu, Hawaii.
Patterson, Bryan, Chicago.

Reed, H. S., Berkeley, California.
Riggs, Elmer S., Chicago.
Roosevelt, Colonel Theodore, New York.
Ruiz Leal, Adrian, Mexico City, Mexico.

St. John, Harold, Honolulu, Hawaiian Islands.
Schmidt, Karl P., Chicago.
Schoreto, Professor J. C., Gröningen, Holland.
Scott, Thomas G., Ames, Iowa.
Seligman, C. G., Oxford, England.
Serrano, Antonio, Paraná, Argentina.
Shen, T. C., Chicago.
Sherff, Dr. E. E., Chicago.
Siverling, George, Chicago.
Smith, Benjamin K., Chicago.
Smith, Dr. Hobart M., Chicago.
Standley, Paul C., Chicago.
Stearn, William T., Westminster, England.
Strimple, Harrell, Bartlesville, Oklahoma.

Thomas, Mrs. Elsie H., Chicago.

Uthmöller, Wolfgang, Munich, Germany.

Vincent, Edith, Chicago.

Walker, Dr. James W., Chicago.
Weed, Alfred C., Chicago.
Wernert, Paul, Strasbourg, France.
Wilbur, C. Martin, Chicago.
Williams, Llewelyn, Caracas, Venezuela.
Woods, Loren P., Chicago.
Woolcock, Violet.

Yeager, Don G., Berkeley, California.
Yepes, José, Buenos Aires, Argentina.
Young, W. A., Bromley, Kent, England.

ARTICLES OF INCORPORATION

STATE OF ILLINOIS

DEPARTMENT OF STATE

WILLIAM H. HINRICHSEN, *Secretary of State*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A.D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSEN,
Secretary of State.

[SEAL]

TO HON. WILLIAM H. HINRICHSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to-wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archaeology, Science and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Edward E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(*Signed*)

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McCurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers,

Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimmons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS } ss.
COOK COUNTY }

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL] NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

CHANGE OF NAME

Pursuant to a resolution passed at a meeting of the corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

CHANGE IN ARTICLE 3

Pursuant to a resolution passed at a meeting of the corporate members held the 10th day of May, 1920, the management of FIELD MUSEUM OF NATURAL HISTORY shall be invested in a Board of TWENTY-ONE (21) TRUSTEES, who shall be elected in such manner and for such time and term of office as may be provided for by the By-Laws. A certificate to this effect was filed May 21, 1920, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS

DECEMBER, 1937

ARTICLE I

MEMBERS

SECTION 1. Members shall be of twelve classes, Corporate Members, Honorary Members, Patrons, Corresponding Members, Benefactors, Contributors, Life Members, Non-Resident Life Members, Associate Members, Non-Resident Associate Members, Sustaining Members, and Annual Members.

SECTION 2. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such person named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of Twenty Dollars ($20.00) or more. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SECTION 3. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

SECTION 4. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SECTION 5. Any person contributing or devising the sum of One Hundred Thousand Dollars ($100,000.00) in cash, or securities, or property to the funds of the Museum, may be elected a Benefactor of the Museum.

SECTION 6. Corresponding Members shall be chosen by the Board from among scientists or patrons of science residing in foreign countries, who render important service to the Museum. They shall be elected by the Board of Trustees at any of its meetings. They shall be exempt from all dues and shall enjoy all courtesies of the Museum.

SECTION 7. Any person contributing to the Museum One Thousand Dollars ($1,000.00) or more in cash, securities, or material, may be elected a Contributor of the Museum. Contributors shall be exempt from all dues and shall enjoy all courtesies of the Museum.

SECTION 8. Any person paying into the treasury the sum of Five Hundred Dollars ($500.00), at any one time, shall, upon the unanimous vote of the Board, become a Life Member. Life Members shall be exempt from all dues, and shall enjoy all the privileges and courtesies of the Museum that are accorded to members of the Board of Trustees. Any person residing fifty miles or more from the city of Chicago, paying into the treasury the sum of One Hundred Dollars ($100.00) at any one time, shall, upon the unanimous vote of the Board, become a Non-Resident Life Member. Non-Resident Life Members shall be exempt from all dues, and shall enjoy all the privileges and courtesies of the Museum that are accorded to members of the Board of Trustees.

SECTION 9. Any person paying into the treasury of the Museum the sum of One Hundred Dollars ($100.00), at any one time, shall, upon the vote of the Board, become an Associate Member. Associate Members shall be exempt from all dues, and shall be entitled to tickets admitting Member and members of family, including non-resident home guests; all publications of the Museum issued during the period of their membership, if so desired; reserved seats for all lectures and enter-

tainments under the auspices of the Museum, provided reservation is requested in advance; and admission of holder of membership and accompanying party to all special exhibits and Museum functions day or evening. Any person residing fifty miles or more from the city of Chicago, paying into the treasury the sum of Fifty Dollars ($50.00) at any one time, shall, upon the unanimous vote of the Board, become a Non-Resident Associate Member. Non-Resident Associate Members shall be exempt from all dues, and shall enjoy all the privileges and courtesies of the Museum that are accorded to Associate Members.

SECTION 10. Sustaining Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of Twenty-five Dollars ($25.00), payable within thirty days after notice of election and within thirty days after each recurring annual date. This Sustaining Membership entitles the member to free admission for the Member and family to the Museum on any day, the Annual Report and such other Museum documents or publications issued during the period of their membership as may be requested in writing. When a Sustaining Member has paid the annual fee of $25.00 for six years, such Member shall be entitled to become an Associate Member.

SECTION 11. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of Ten Dollars ($10.00), payable within thirty days after each recurring annual date. An Annual Membership shall entitle the Member to a card of admission for the Member and family during all hours when the Museum is open to the public, and free admission for the Member and family to all Museum lectures or entertainments. This membership will also entitle the holder to the courtesies of the membership privileges of every Museum of note in the United States and Canada, so long as the existing system of co-operative interchange of membership tickets shall be maintained, including tickets for any lectures given under the auspices of any of the Museums during a visit to the cities in which the co-operative museums are located.

SECTION 12. All membership fees, excepting Sustaining and Annual, shall hereafter be applied to a permanent Membership Endowment Fund, the interest only of which shall be applied for the use of the Museum as the Board of Trustees may order.

ARTICLE II

BOARD OF TRUSTEES

SECTION 1. The Board of Trustees shall consist of twenty-one members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting of the Board, by a majority vote of the members of the Board present.

SECTION 2. Regular meetings of the Board shall be held on the third Monday of the month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SECTION 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

ARTICLE III

HONORARY TRUSTEES

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, any Trustee who by reason of inability, on account of change of residence, or for other cause or from indisposition to serve longer in such capacity shall resign his place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees,

whether regular or special, and will be expected to be present at all such meetings and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

ARTICLE IV

OFFICERS

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Third Vice-President, a Secretary, an Assistant Secretary and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, the Second Vice-President, and the Third Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the third Monday of January of each year, and shall be called the Annual Meeting.

SECTION 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SECTION 3. The officers shall perform such duties as ordinarily appertain to their respective offices, and such as shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.

ARTICLE V

THE TREASURER

SECTION 1. The Treasurer shall be custodian of the funds of the Corporation except as hereinafter provided. He shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents, or any member of the Finance Committee.

SECTION 2. The securities and muniments of title belonging to the corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer, except as hereinafter provided. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely: the President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

SECTION 3. The Treasurer shall give bond in such amount, and with such sureties as shall be approved by the Board of Trustees.

SECTION 4. The Harris Trust & Savings Bank of Chicago shall be Custodian of "The N. W. Harris Public School Extension of Field Museum" fund. The bank shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents, or any member of the Finance Committee.

ARTICLE VI

THE DIRECTOR

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the Institution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, or its Committees, and the scientific staff and maintenance force.

SECTION 2. There shall be four scientific Departments of the Museum—Anthropology, Botany, Geology, and Zoology; each under the charge of a Chief

Curator, subject to the authority of the Director. The Chief Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific Departments shall be appointed and removed by the Director upon the recommendation of the Chief Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SECTION 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the Board may direct.

ARTICLE VII

THE AUDITOR

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all bills rendered for the expenditure of the money of the Corporation.

ARTICLE VIII

COMMITTEES

SECTION 1. There shall be five Committees, as follows: Finance, Building, Auditing, Pension, and Executive.

SECTION 2. The Finance Committee shall consist of six members, the Auditing and Pension Committees shall each consist of three members, and the Building Committee shall consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committee; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SECTION 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Auditing Committee, the Chairman of the Pension Committee, and three other members of the Board to be elected by ballot at the Annual Meeting.

SECTION 4. Four members shall constitute a quorum of the Executive Committee, and in all standing Committees two members shall constitute a quorum. In the event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any members of the Board of Trustees to act in place of the absentee.

SECTION 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest funds, subject to the approval of the Board.

SECTION 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SECTION 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of

each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the expenditures stated are authorized.

SECTION 8. The Auditing Committee shall have supervision over all accounting and bookkeeping, and full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall transmit the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SECTION 9. The Pension Committee shall determine by such means and processes as shall be established by the Board of Trustees to whom and in what amount the Pension Fund shall be distributed. These determinations or findings shall be subject to the approval of the Board of Trustees.

SECTION 10. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SECTION 11. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

ARTICLE IX

NOMINATING COMMITTEE

SECTION 1. At the November meeting of the Board each year, a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Auditing Committee, and the Pension Committee, and for three members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

ARTICLE X

SECTION 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum as an Institution is located and operated, the material exhibited, the material in study collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution and the workings, researches, installations, expenditures, field work, laboratories, library, publications, lecture courses, and all scientific and maintenance activities.

SECTION 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.

FOUNDER

Marshall Field*

BENEFACTORS

Those who have contributed $100,000 or more to the Museum

Ayer, Edward E.*

Buckingham, Miss Kate S.*

Crane, Cornelius
Crane, R. T., Jr.*

Field, Joseph N.*
Field, Marshall
Field, Stanley

Graham, Ernest R.*

Harris, Albert W.
Harris, Norman W.*
Higinbotham, Harlow N.*

Kelley, William V.*

Pullman, George M.*

Rawson, Frederick H.*
Raymond, Mrs. Anna Louise

Raymond, James Nelson*
Ryerson, Martin A.*
Ryerson, Mrs. Martin A.*

Simpson, James
Smith, Mrs. Frances Gaylord*
Smith, George T.*
Sturges, Mrs. Mary D.*
Suarez, Mrs. Diego

* Deceased

HONORARY MEMBERS

Those who have rendered eminent service to Science

Crane, Charles R.
Cutting, C. Suydam

Field, Marshall
Field, Stanley

Harris, Albert W.

Ludwig, H. R. H. Gustaf Adolf, Crown Prince of Sweden

McCormick, Stanley

Roosevelt, Kermit

Roosevelt, Theodore

Sargent, Homer E.
Simpson, James
Sprague, Albert A.
Suarez, Mrs. Diego

Vernay, Arthur S.

Deceased, 1938

Chalmers, William J.

PATRONS

Those who have rendered eminent service to the Museum

Armour, Allison V.

Chadbourne, Mrs. Emily Crane
Chancellor, Philip M.
Cherrie, George K.
Collins, Alfred M.
Conover, Boardman
Cummings, Mrs. Robert F.
Cutting, C. Suydam

Day, Lee Garnett

Ellsworth, Duncan S.

Field, Mrs. Stanley

Hancock, G. Allan

Kennedy, Vernon Shaw
Knight, Charles R.

Moore, Mrs. William H.

Probst, Edward

Roosevelt, Kermit
Roosevelt, Theodore

Sargent, Homer E.
Straus, Mrs. Oscar
Strawn, Silas H.
Suarez, Mrs. Diego

Vernay, Arthur S.

Wegeforth, Dr. Harry M.
White, Harold A.

Deceased, 1938

Insull, Samuel

CORRESPONDING MEMBERS

Scientists or patrons of science, residing in foreign countries, who have rendered eminent service to the Museum

Breuil, Abbé Henri

Christensen, Dr. Carl

Diels, Dr. Ludwig

Hochreutiner, Dr. B. P. Georges

Keissler, Dr. Karl

Keith, Professor Sir Arthur

CONTRIBUTORS

Those who have contributed $1,000 to $100,000 to the Museum in money or materials

$75,000 to $100,000

Chancellor, Philip M.

$50,000 to $75,000

Keep, Chauncey*

Rosenwald, Mrs. Augusta N.*

$25,000 to $50,000

Adams, Mrs. Edith Almy*

Blackstone, Mrs. Timothy B.*

Coats, John*

Crane, Charles R.

Field, Mrs. Stanley

Jones, Arthur B.*

Porter, George F.*

Rosenwald, Julius*

Vernay, Arthur S.

White, Harold A.

$10,000 to $25,000

Armour, Allison V.

Armour, P. D.*

Chadbourne, Mrs. Emily Crane

Chalmers, William J.*

Conover, Boardman

Cummings, R. F.*

Cutting, C. Suydam

Everard, R. T.*

Gunsaulus, Dr. F. W.*

Insull, Samuel*

Laufer, Dr. Berthold*

McCormick, Cyrus (Estate)

McCormick, Stanley

Mitchell, John J.*

Reese, Lewis*

Robb, Mrs. George W.

Rockefeller Foundation, The

Sargent, Homer E.

Schweppe, Mrs. Charles H.*

Straus, Mrs. Oscar

Strong, Walter A.*

Wrigley, William, Jr.*

$5,000 to $10,000

Adams, George E.*

Adams, Milward*

American Friends of China

Avery, Sewell L.

Bartlett, A. C.*

Bishop, Heber (Estate)

Borland, Mrs. John Jay*

Crane, R. T.*

Doane, J. W.*

Field, Dr. Henry

Fuller, William A.*

Graves, George Coe, II*

Harris, Hayden B.

Harris, Norman Dwight

Harris, Mrs. Norman W.*

Hutchinson, C. L.*

Keith, Edson*

Langtry, J. C.

Lufkin, Wallace W.

MacLean, Mrs. M. Haddon

Mandel, Leon

Moore, Mrs. William H.

Payne, John Barton*

Pearsons, D. K.*

Porter, H. H.*

Ream, Norman B.*

Revell, Alexander H.*

Salie, Prince M. U. M.

Sprague, A. A.*

Strawn, Silas H.

Thorne, Bruce

Tree, Lambert*

$1,000 to $5,000

Avery, Miss Clara A.*

Ayer, Mrs. Edward E.*

Barrett, Samuel E.*

Bensabott, R., Inc.

Blair, Watson F.*

Blaschke, Stanley Field

Block, Mrs. Helen M.*

Borden, John

Chalmers, Mrs. William J.

Chicago Zoological Society, The

Crane, Mrs. R. T., Jr.

Crocker, Templeton

*DECEASED

Cummings, Mrs. Robert F.
Doering, O. C.
Graves, Henry, Jr.
Gunsaulus, Miss Helen
Hibbard, W. G.*
Higginson, Mrs. Charles M.*
Hill, James J.*
Hixon, Frank P.*
Hoffman, Miss Malvina
Hughes, Thomas S.
Jackson, Huntington W.*
James, S. L.
Lee Ling Yün
Look, Alfred A.
Mandel, Fred L., Jr.
Manierre, George*
Martin, Alfred T.*
McCormick, Cyrus H.*
McCormick, Mrs. Cyrus*
Ogden, Mrs. Frances E.*
Osgood, Dr. Wilfred H.
Palmer, Potter
Patten, Henry J.
Rauchfuss, Charles F.
Raymond, Charles E.*
Reynolds, Earle H.
Rumely, William N.*
Schwab, Martin C.
Shaw, William W.
Sherff, Dr. Earl E.
Smith, Byron L.*
Sprague, Albert A.
Thompson, E. H.*
Thorne, Mrs. Louise E.
VanValzah, Dr. Robert
VonFrantzius, Fritz*
Wheeler, Leslie*
Wheeler, Mrs. Leslie
Willis, L. M.

*DECEASED

CORPORATE MEMBERS

Armour, Allison V.
Avery, Sewell L.
Block, Leopold E.
Borden, John
Byram, Harry E.
Chadbourne, Mrs. Emily Crane
Chancellor, Philip M.
Chatfield-Taylor, H. C.
Cherrie, George K.
Collins, Alfred M.
Conover, Boardman
Cummings, Mrs. Robert F.
Cutting, C. Suydam
Day, Lee Garnett
Dick, Albert B., Jr.
Ellsworth, Duncan S.
Field, Joseph N.
Field, Marshall
Field, Stanley
Field, Mrs. Stanley
Hancock, G. Allan
Harris, Albert W.
Insull, Samuel, Jr.
Kennedy, Vernon Shaw
Knight, Charles R.
McCulloch, Charles A.
Mitchell, William H.
Moore, Mrs. William H.
Probst, Edward
Richardson, George A.
Roosevelt, Kermit
Roosevelt, Theodore
Sargent, Fred W.
Sargent, Homer E.
Simpson, James
Smith, Solomon A.
Sprague, Albert A.
Straus, Mrs. Oscar
Strawn, Silas H.
Suarez, Mrs. Diego
Vernay, Arthur S.
Wegeforth, Dr. Harry M.
White, Harold A.
Wilson, John P.

DECEASED, 1938

Chalmers, William J. Insull, Samuel

LIFE MEMBERS

Those who have contributed $500 to the Museum

Abbott, John Jay
Abbott, Robert S.
Adler, Max
Alexander, William A.
Allerton, Robert H.
Ames, James C.
Armour, Allison V.
Armour, A. Watson
Armour, Lester
Armour, Mrs. Ogden
Asher, Louis E.
Avery, Sewell L.
Babson, Henry B.
Bacon, Edward Richardson, Jr.
Banks, Alexander F.
Barnhart, Miss Gracia M. F.
Barrett, Mrs. A. D.
Barrett, Robert L.
Bartlett, Miss Florence Dibell
Baur, Mrs. Jacob
Bendix, Vincent
Bensabott, R.
Bermingham, Edward J.
Blaine, Mrs. Emmons
Blair, Chauncey B.
Block, Emanuel J.

Block, Leopold E.
Block, Philip D.
Booth, W. Vernon
Borden, John
Borland, Chauncey B.
Brassert, Herman A.
Brewster, Walter S.
Brown, Charles Edward
Browne, Aldis J.
Buchanan, D. W.
Budd, Britton I.
Burnham, John
Burt, William G.
Butler, Julius W.
Butler, Rush C.
Byram, Harry E.

Carpenter, Augustus A.
Carpenter, Mrs. Hubbard
Carpenter, Mrs. John Alden
Carr, George R.
Carr, Robert F.
Carr, Walter S.
Casalis, Mrs. Maurice
Chalmers, Mrs. William J.
Chatfield-Taylor, Wayne
Clark, Eugene B.
Clegg, William G.
Clegg, Mrs. William G.
Clow, William E.
Collins, William M.
Conover, Boardman
Corley, F. D.
Cowles, Alfred
Cramer, Corwith
Crane, Charles R.
Crossett, Edward C.
Crossley, Lady Josephine
Crossley, Sir Kenneth
Crowell, H. P.
Cudahy, Edward A.
Cudahy, Edward A., Jr.
Cudahy, Joseph M.
Cummings, Walter J.
Cunningham, Frank S.
Cunningham, James D.
Cushing, Charles G.

Davies, Mrs. D. C.
Dawes, Charles G.
Dawes, Henry M.
Dawes, Rufus C.
Decker, Alfred
Delano, Frederic A.
Dick, Albert B., Jr.
Dierssen, Ferdinand W.
Dixon, Homer L.
Donnelley, Thomas E.
Doyle, Edward J.
Drake, John B.
Drake, Tracy C.
Durand, Scott S.

Edmunds, Philip S.
Ely, Mrs. C. Morse
Epstein, Max
Everitt, George B.
Ewing, Charles Hull

Farnum, Henry W.
Farr, Newton Camp
Farr, Miss Shirley
Farwell, Arthur L.
Farwell, John V.
Farwell, Walter
Fay, C. N.
Fenton, Howard W.
Fentress, Calvin
Ferguson, Louis A.
Fernald, Charles
Field, Joseph N.
Field, Marshall
Field, Norman
Field, Mrs. Norman
Field, Stanley
Field, Mrs. Stanley

Gardner, Robert A.
Gartz, A. F., Jr.
Gary, Mrs. John W.
Gilbert, Huntly H.
Glore, Charles F.
Goodspeed, Charles B.
Gowing, J. Parker

Hack, Frederick C.
Hamill, Alfred E.
Hamill, Mrs. Ernest A.
Harris, Albert W.
Harris, Norman W.
Hastings, Samuel M.
Hayes, William F.
Hecht, Frank A., Jr.
Heineman, Oscar
Hemmens, Mrs. Walter P.
Hibbard, Frank
Hickox, Mrs. Charles V.
Hill, Louis W.
Hinde, Thomas W.
Hixon, Robert
Hopkins, J. M.
Hopkins, L. J.
Horowitz, L. J.
Hoyt, N. Landon
Hughes, Thomas S.
Hutchins, James C.

Insull, Martin J.
Insull, Samuel, Jr.

Jarnagin, William N.
Jelke, John F., Jr.
Johnson, Mrs. Elizabeth Ayer
Joiner, Theodore E.
Jones, Miss Gwethalyn

Kelley, Mrs. Daphne Field
Kelley, Russell P.
Kidston, William H.
King, Charles Garfield
King, James G.
Kirk, Walter Radcliffe
Knickerbocker, Charles K.

Ladd, John
Lamont, Robert P.
Lehmann, E. J.
Leonard, Clifford M.
Leopold, Mrs. Harold E.
Levy, Mrs. David M.
Linn, Mrs. Dorothy C.
Logan, Spencer H.
Lowden, Frank O.
Lytton, Henry C.

MacDowell, Charles H.
MacLeish, John E.
MacVeagh, Eames
Madlener, Mrs. Albert F.
Marshall, Benjamin H.
Mason, William S.
McCormick, Harold F.
McCormick, Stanley
McCulloch, Charles A.
McCutcheon, John T.
McGann, Mrs. Robert G.
McIlvaine, William B.
McInnerney, Thomas H.
McKinlay, John
McLaughlin, Frederic
McLennan, D. R.
McLennan, Hugh
McNulty, T. J.
Meyer, Carl
Meyne, Gerhardt F.
Mitchell, William H.
Moore, Edward S.
Morse, Charles H., Jr.
Morton, Mark
Munroe, Charles A.
Murphy, Walter P.

Newell, A. B.
Nikolas, G. J.
Noel, Joseph R.

Ormsby, Dr. Oliver S.
Orr, Robert M.

Paesch, Charles A.
Palmer, Honore
Palmer, Potter
Patterson, Joseph M.
Payson, George S.
Peabody, Stuyvesant
Pick, Albert
Pike, Charles B.
Pike, Eugene R.
Poppenhusen, Conrad H.
Porter, Gilbert E.

Raymond, Mrs. Anna Louise
Reynolds, Arthur
Reynolds, Earle H.
Reynolds, George M.
Riley, Harrison B.
Rinaldo, Mrs. Philip S.
Robinson, Theodore W.
Robson, Miss Alice
Rodman, Mrs. Katherine Field
Rodman, Thomas Clifford
Rosenwald, William
Russell, Edmund A.
Russell, Edward P.
Ryerson, Edward L., Jr.

Sargent, Fred W.
Schweppe, Charles H.
Scott, George E.
Scott, Harold N.
Seabury, Charles W.
Shaffer, John C.
Shirk, Joseph H.
Simpson, James
Simpson, William B.
Smith, Alexander
Smith, Solomon A.
Spalding, Keith
Spalding, Vaughan C.
Sprague, Albert A.
Sprague, Mrs. Albert A.
Stern, Mrs. Alfred K.
Stewart, Robert W.
Stirton, Robert C.
Storey, W. B.
Strawn, Silas H.
Stuart, Harry L.
Stuart, John
Stuart, R. Douglas
Sturges, George
Sunny, B. E.
Swift, Charles H.
Swift, G. F., Jr.
Swift, Harold H.
Thorne, Charles H.
Thorne, Robert J.
Tree, Ronald L. F.
Tyson, Russell

Uihlein, Edgar J.
Underwood, Morgan P.

Valentine, Louis L.
Veatch, George L.
Viles, Lawrence M.

Wanner, Harry C.
Ward, P. C.
Weber, David
Welch, Mrs. Edwin P.
Welling, John P.
Wheeler, Mrs. Leslie
Whitney, Mrs. Julia L.
Wickwire, Mrs. Edward L.
Wieboldt, William A.
Willard, Alonzo J.
Willits, Ward W.
Wilson, John P.
Wilson, Thomas E.
Winston, Garrard B.
Winter, Wallace C.
Woolley, Clarence M.
Wrigley, Philip K.

Yates, David M.

DECEASED, 1938

Boynton, Mrs. C. T.

Chalmers, William J.
Cooke, George A.
Cramer, Mrs. Katharine S.

Dixon, George W.

Gardner, Paul E.
Getz, George F.
Goodrich, A. W.

Insull, Samuel

Kelly, D. F.

Patten, Henry J.

NON-RESIDENT LIFE MEMBERS

Those, residing fifty miles or more from the city of Chicago, who have contributed $100 to the Museum

Coolidge, Harold J., Jr.
Copley, Ira Cliff

Ellis, Ralph

Gregg, John Wyatt

Hearne, Knox

Johnson, Herbert F., Jr.

Rosenwald, Lessing J.

Stephens, W. C.
Stern, Mrs. Edgar B.

Vernay, Arthur S.

ASSOCIATE MEMBERS

Those who have contributed $100 to the Museum

Aaron, Charles
Aaron, Ely M.
Abbott, Donald Putnam, Jr.
Abbott, Gordon C.
Abbott, Guy H.
Abbott, W. Rufus
Abbott, William L.
Abrahamsen, Miss Cora
Abrams, Duff A.
Ackerman, Charles N.
Adamick, Gustave H.
Adams, Benjamin Stearns
Adams, Mrs. David T.
Adams, Mrs. Frances Sprogle
Adams, Miss Jane
Adams, John Q.
Adams, Joseph
Adams, Mrs. S. H.
Adams, Mrs. Samuel
Adams, William C.
Adamson, Henry T.
Adcock, Mrs. Bessie
Addleman, Samuel W.
Adler, David
Adler, Mrs. Max
Affleck, Benjamin F.
Ahlschlager, Walter W.
Albee, Mrs. Harry W.
Alden, William T.
Alexander, Mrs. Arline V.
Alexander, Edward
Allbright, William B.
Allen, Mrs. Fred G.
Allensworth, A. P.
Alling, Mrs. C. A.
Allison, Mrs. Nathaniel
Alschuler, Alfred S.
Alsip, Charles H.
Alsip, Mrs. Charles H.
Alter, Harry
Alton, Carol W.
Ames, Rev. Edward S.
Andersen, Arthur
Anderson, Miss Florence Regina
Andreen, Otto C.
Andrews, Mrs. E. C.
Andrews, Milton H.
Anstiss, George P.
Appelt, Mrs. Jessie E.
Armbrust, John T.
Armbruster, Charles A.
Armour, A. Watson, III
Armour, Laurance H.
Armour, Philip D.
Armstrong, Mrs. Julian
Arn, W. G.
Arnold, Mrs. Lloyd
Artingstall, Samuel G., Jr.
Ascher, Fred
Ashby, W. B.
Ashcraft, Raymond M.
Ashenhurst, Harold S.
Atkinson, Charles T.
Atwater, Walter Hull
Aurelius, Mrs. Marcus A.
Austin, E. F.
Austin, Henry W.
Avery, George J.

Baackes, Mrs. Frank
Babb, W. E.
Babson, Mrs. Gustavus
Bacon, Dr. Alfons R.
Badger, Shreve Cowles
Baer, Mervin K.
Baer, Walter S.
Baggaley, William Blair
Baird, Harry K.
Baker, Mrs. Alfred L.
Baker, G. W.
Baker, Greeley
Baldwin, Mrs. Katharine W.
Baldwin, Vincent Curtis
Balgemann, Otto W.
Balkin, Louis
Ball, Dr. Fred E.
Ball, Sidney Y.
Ballard, Thomas L.
Ballenberg, Adolph G.
Banks, Edgar C.
Bannister, Miss Ruth D.
Bantsolas, John N.
Barber, Phil C.
Barbour, Harry A.
Barbour, James J.
Bargquist, Miss Lillian D.
Barnes, Cecil
Barnes, Mrs. Charles Osborne
Barnes, James M.
Barnett, Otto R.
Barnhart, Mrs. A. M.
Barnum, Harry
Barr, Mrs. Alfred H.
Bartelme, John H.
Bartholomae, Mrs. Emma
Bartholomay, F. H.
Bartholomay, Henry
Bartholomay, Mrs. William, Jr.
Bartlett, Frederic C.
Barton, Mrs. Enos M.
Basta, George A.
Bastian, Charles L.
Bateman, Floyd L.
Bates, Mrs. A. M.
Bates, Joseph A.
Battey, Paul L.
Bauer, Aleck
Baum, Mrs. James E.
Baum, Wilhelm
Baumrucker, Charles F.
Bausch, William C.
Beach, Miss Bess K.
Beach, E. Chandler
Beachy, Mrs. P. A.
Beachy, Mrs. Walter F.
Beatty, H. W.
Becker, Benjamin F.
Becker, Benjamin V.
Becker, Frederick G.
Becker, Herman T.
Becker, James H.
Becker, Louis
Becker, Louis L.
Behr, Mrs. Edith
Beidler, Francis, II
Belden, Joseph C.
Bell, Mrs. Laird
Bender, Charles J.
Benjamin, Jack A.
Benner, Harry
Bennett, Professor J. Gardner
Benson, John
Bentley, Arthur
Bentley, Mrs. Cyrus
Benton, Miss Mabel M.
Berend, George F.
Berger, Dr. John M.
Berkowitz, Dr. J. G.
Berryman, John B.
Bersbach, Elmer S.
Bertschinger, Dr. C. F.
Besly, Mrs. C. H.
Bettman, Dr. Ralph B.
Bevan, Dr. Arthur Dean
Bichl, Thomas A.
Bidwell, Charles W.
Biehn, Dr. J. F.
Bigler, Mrs. Albert J.
Billow, Elmer Ellsworth
Billow, Miss Virginia
Bird, Miss Frances
Bird, George H.
Birk, Miss Amelia
Birk, Edward J.
Birk, Frank J.

Birkenstein, George
Birkholz, Hans E.
Bischoff, Dr. Fred
Bishop, Howard P.
Bishop, Mrs. Martha V.
Bistor, James E.
Bittel, Mrs. Frank J.
Bixby, Edward Randall
Blackburn, Oliver A.
Blackman, Nathan L.
Blair, Edward T.
Blair, Mrs. M. Barbour
Blair, Wolcott
Blake, Tiffany
Blatchford, Carter
Blatchford, Dr. Frank Wicks
Blayney, Thomas C.
Blessing, Dr. Robert
Blish, Sylvester
Blome, Rudolph S.
Bloom, Mrs. Leopold
Blum, David
Blum, Harry H.
Blunt, J. E., Jr.
Bluthardt, Edwin
Boal, Ayres
Boberg, Niels
Boericke, Mrs. Anna
Boettcher, Arthur H.
Bohasseck, Charles
Bolten, Paul H.
Bondy, Berthold
Boomer, Dr. Paul C.
Boone, Arthur
Booth, Alfred V.
Booth, George E.
Borg, George W.
Borland, Mrs. Bruce
Borwell, Robert C.
Bosch, Charles
Bosch, Mrs. Henry
Both, William C.
Botts, Graeme G.
Bousa, Dr. Bohuslav
Bowen, Mrs. Louise DeKoven
Bowes, William R.
Bowey, Mrs. Charles F.
Bowman, Johnston A.
Boyack, Harry
Boyd, Mrs. T. Kenneth
Boyden, Miss Ellen Webb
Boyden, Miss Rosalie Sturges
Boynton, A. J.
Boynton, Frederick P.
Brach, Mrs. F. V.
Bradley, Mrs. A. Ballard
Bradley, Charles E.
Bradley, Mrs. Natalie Blair Higinbotham
Brainerd, Mrs. Arthur T.
Bramble, Delhi G. C.
Brand, Mrs. Edwin L., Jr.
Brand, Mrs. Maude G.
Brand, Mrs. Rudolf
Brandes, A. G.
Brandt, Charles H.
Bransfield, John J.
Brauer, Mrs. Paul
Breckinridge, Professor S. P.
Bremer, Harry A.
Bremner, Mrs. David F., Jr.
Brendecke, Miss June
Brennan, Mrs. George E.
Brennemann, Dr. Joseph
Brennwasser, S. M.
Brenza, Miss Mary
Brewer, Mrs. Angeline L.
Breyer, Mrs. Theodor
Bridges, Arnold
Briggs, Mrs. Gertrude
Bristol, James T.
Brock, A. J.
Brodribb, Lawrence C.
Broome, Thornhill
Brown, A. Wilder
Brown, Benjamin R.
Brown, Christy
Brown, Mrs. Everett C.
Brown, Mrs. George Dewes
Brown, John T.
Brown, Dr. Joshua M.
Brown, Mark A.
Brown, Scott
Brucker, Dr. Edward A.
Bruckner, William T.
Brugman, John J.
Brundage, Avery
Brunswick, Larry
Brunt, J. P.
Bryant, John J., Jr.
Buck, Guy R.
Buck, Mrs. Lillian B.
Buck, Nelson Leroy
Bucklin, Mrs. Vail R.
Budlong, Joseph J.
Buehler, Mrs. Carl
Buehler, H. L.
Buettner, Walter J.
Buffington, Mrs. Margaret A.
Buhmann, Gilbert G.
Bull, Richard S.
Bullock, Mrs. James E.
Bunge, Mrs. Albert J.
Bunte, Mrs. Theodore W.
Burdick, Mrs. Alfred S.
Burgess, Charles F.
Burgmeier, John M.
Burgstreser, Newton
Burgweger, Mrs. Meta Dewes
Burke, Mrs. Lawrence N.
Burke, Webster H.
Burkholder, Dr. J. F.
Burley, Mrs. Clarence A.
Burnham, Mrs. Edward
Burnham, Frederic
Burns, Mrs. Randall W.
Burrows, Mrs. W. F.
Burry, Mrs. William
Burry, William, Jr.
Burtch, Almon
Burton, Mrs. Ernest D.
Bush, Mrs. Lionel E.
Bush, Mrs. William H.
Butler, Burridge D.
Butler, Mrs. Hermon B.
Butler, J. Fred
Butler, John M.
Butler, Paul
Butz, Herbert R.
Butz, Robert O.
Butz, Theodore C.
Butzow, Mrs. Robert C.
Byfield, Dr. Albert H.
Byrne, Miss Margaret H.

Cable, J. Elmer
Cahn, Dr. Alvin R.
Cahn, Bertram J.
Cahn, Morton D.
Caine, John F.
Caldwell, C. D.
Callender, Mrs. Joseph E.
Cameron, Dr. Dan U.
Cameron, John M.
Cameron, Will J.
Camp, Mrs. Arthur Royce
Campbell, Delwin M.
Campbell, Herbert J.
Canby, Caleb H., Jr.
Capes, Lawrence R.
Capper, Miss M. M.
Capps, Dr. Joseph A.
Carlin, Leo J.
Carney, William Roy
Caron, O. J.
Carpenter, Mrs. Benjamin
Carpenter, Frederic Ives
Carpenter, Mrs. George A.
Carpenter, George Sturges
Carpenter, Hubbard
Carpenter, Miss Rosalie Sturges
Carpenter, W. W. S.
Carqueville, Mrs. A. R.
Carr, Mrs. Clyde M.

Carroll, John A.
Carry, Joseph C.
Carter, Mrs. Armistead B.
Carton, Alfred T.
Cary, Dr. Eugene
Casselberry, Mrs. William Evans, Sr.
Cassels, Edwin H.
Castle, Alfred C.
Castruccio, Giuseppe
Cates, Dudley
Cernoch, Frank
Chandler, Henry P.
Chapin, Henry Kent
Chapin, William Arthur
Chapman, Arthur E.
Chappell, Mrs. Charles H.
Cheney, Dr. Henry W.
Cherry, Walter L., Jr.
Childs, Mrs. C. Frederick
Chinnock, Mrs. Ronald J.
Chisholm, George D.
Chislett, Miss Kate E.
Chritton, George A.
Churan, Charles A.
Clark, Ainsworth W.
Clark, Miss Alice Keep
Clark, Charles V.
Clark, Miss Dorothy S.
Clark, Mrs. Edward S.
Clark, Edwin H.
Clark, Lincoln R.
Clark, Dr. Peter S.
Clarke, Charles F.
Clarke, Harley L.
Clas, Miss Mary Louise
Clay, John
Clemen, Dr. Rudolf A.
Cleveland, Paul W.
Clinch, Duncan L.
Clithero, W. S.
Clonick, Seymour E.
Clough, William H.
Clow, Mrs. Harry B.
Clow, William E., Jr.
Cochran, John L.
Coffin, Fred Y.
Cohen, George B.
Cohen, Mrs. L. Lewis
Colburn, Frederick S.
Colby, Mrs. George E.
Coldren, Clifton C.
Coleman, Clarence L., Jr.
Coleman, Dr. George H.
Coleman, Loring W.
Coleman, William Ogden
Colianni, Paul V.
Collins, Beryl B.
Collison, E. K.
Colvin, Miss Catharine
Colvin, Miss Jessie
Colvin, Mrs. William H.
Colwell, Clyde C.
Compton, D. M.
Compton, Frank E.
Condon, Mrs. James G.
Conger, Miss Cornelia
Connell, P. G.
Conners, Harry
Connor, Mrs. Clara A.
Connor, Frank H.
Cook, Miss Alice B.
Cook, Mrs. David S.
Cook, Jonathan Miller
Cooke, Charles E.
Cooke, Miss Flora
Cooke, Leslie L.
Coolidge, Miss Alice
Coolidge, E. Channing
Coolidge, Dr. Edgar D.
Coombs, James F.
Coonley, John Stuart
Coonley, Prentiss L.
Cooper, Samuel
Copland, David
Corbett, Mrs. William J.
Cornell, Dr. Edward L.
Cosford, Thomas H.
Coston, James E.
Cowan, Mrs. Grace L.
Cox, Mrs. Howard M.
Cox, James A.
Cox, James C.
Cox, Mrs. Rensselaer W.
Crane, Charles R., II
Crego, Mrs. Dominica S.
Crerar, Mrs. John
Crilly, Edgar
Cromer, Clarence E.
Cromwell, Miss Juliette Clara
Cross, Henry H.
Crowder, Dr. Thomas R.
Cubbins, Dr. William R.
Cudahy, Edward I.
Culbertson, Dr. Carey
Cummings, Mrs. D. Mark
Cuneo, John F.
Cunningham, John T.
Curran, Harry R.
Curtis, Austin Guthrie, Jr.
Curtis, Mrs. Charles S.
Curtis, Miss Frances H.
Cusack, Harold
Cushman, A. W.
Cushman, Barney
Cutler, Henry E.

Dahlberg, Bror G.
Daily, Richard
Daley, Harry C.
Dammann, J. F.
Danforth, Dr. William C.
Dantzig, Leonard P.
Darlington, Joseph F.
Darrow, Paul E.
Dashiell, C. R.
Daughaday, C. Colton
Davey, Mrs. Bruce C.
David, Dr. Vernon C.
Davidonis, Dr. Alexander L.
Davidson, Miss Mary E.
Davies, Marshall
Davis, Arthur
Davis, Brode B.
Davis, C. S.
Davis, Dr. Carl B.
Davis, Frank S.
Davis, Fred M.
Davis, James
Davis, Dr. Loyal
Davis, Dr. Nathan S., III
Davis, Ralph
Dawes, E. L.
DeAcres, Clyde H.
Deahl, Uriah S.
Decker, Charles O.
DeCosta, Lewis M.
DeDardel, Carl O.
Dee, Thomas J.
Deery, Thomas A., Jr.
Degen, David
DeGolyer, Robert S.
DeKoven, Mrs. John
DeLee, Dr. Joseph B.
DeLemon, H. R.
Deming, Everett G.
Dempster, Mrs. Charles W.
Deneen, Mrs. Charles S.
Denison, Mrs. John Porter
Denkewalter, W. E.
Denman, Mrs. Burt J.
Dennehy, Thomas C.
Dennis, Charles H.
DesIsles, Mrs. Carrie L.
Deutsch, Mrs. Percy L.
DeVries, David
DeVries, Peter
Dewes, Rudolph Peter
Dick, Edison
Dick, Elmer J.
Dick, Mrs. Homer T.
Dickey, Roy
Dickinson, F. R.
Dickinson, Robert B.
Dickinson, Mrs. W. Woodbridge
Diehl, Harry L.
Diestel, Mrs. Herman

Dikeman, Aaron Butler
Dillon, Miss Hester May
Dimick, Miss Elizabeth
Dixon, Alan C.
Dixon, William Warren
Doctor, Isidor
Dodge, Mrs. Paul C.
Doering, Mrs. Edmund J., Jr.
Doering, Otto C.
Doerr, William P., Sr.
Doetsch, Miss Anna
Dole, Arthur
Dolese, Mrs. John
Donahue, William J.
Donker, Mrs. William
Donlon, Mrs. Stephen E.
Donnelley, Mrs. H. P.
Donnelley, Miss Naomi
Donnelly, Frank
Donohue, Edgar T.
Douglas, James H., Jr.
Douglass, Kingman
Drake, Lyman M.
Drummond, James J.
Dryden, Mrs. George B.
Dubbs, C. P.
Dudley, Laurence H.
Dugan, Alphonso G.
Dulany, George W., Jr.
Dulsky, Mrs. Samuel
Dunbaugh, Harry J.
Duncan, Albert G.
Duner, Dr. Clarence S.
Duner, Joseph A.
Dunham, John H.
Dunham, Miss Lucy Belle
Dunham, Robert J.
Dunlop, Mrs. Simpson
Dunn, Samuel O.
Dupee, Mrs. F. Kennett
Durbin, Fletcher M.

Easterberg, C. J.
Eastman, Mrs. George H.
Ebeling, Frederic O.
Eckhart, Mrs. B. A.
Eckhart, Percy B.
Eckstein, Mrs. Louis
Eddy, George A.
Eddy, Thomas H.
Edwards, Miss Edith E.
Edwards, Kenneth P.
Egan, William B.
Egloff, Dr. Gustav
Ehrman, Edwin H.
Eisendrath, Edwin W.
Eisendrath, Miss Elsa B.
Eisendrath, Robert M.
Eisendrath, William B.
Eisenschiml, Mrs. Otto
Eisenstaedt, Harry
Eisenstein, Sol
Eitel, Max
Elenbogen, Herman
Elich, Robert William
Ellbogen, Albert L.
Ellbogen, Miss Celia
Elliott, Dr. Charles A.
Elliott, Frank R.
Ellis, Howard
Elting, Howard
Emery, Edward W.
Engberg, Miss Ruth M.
Engel, E. J.
Engstrom, Harold
Engwall, John F.
Erdmann, Mrs. C. Pardee
Ericson, Mrs. Chester F.
Ericson, Melvin Burton
Ericsson, Clarence
Ericsson, Dewey A.
Ericsson, Henry
Ericsson, Walter H.
Ernst, Mrs. Leo
Erskine, Albert DeWolf
Etten, Henry C.
Eustice, Alfred L.
Evans, Mrs. Albert Thomas
Evans, Miss Anna B.
Evans, Mrs. David
Evans, David J.
Evans, Eliot H.
Evans, Evan A.
Ewell, C. D.
Ewen, William R. T.

Fabian, Francis G.
Fabry, Herman
Fabyan, Mrs. George
Fackt, Mrs. George P.
Fader, A. L.
Faget, James E.
Faherty, Roger
Fahrenwald, Frank A.
Faithorn, Walter E.
Falk, Miss Amy
Farnham, Mrs. Harry J.
Farrell, Mrs. B. J.
Faulkner, Charles J., Jr.
Faulkner, Miss Elizabeth
Faurot, Henry
Faurot, Henry, Jr.
Fay, Miss Agnes M.
Fecke, Mrs. Frank J.
Feigenheimer, Herman
Feiwell, Morris E.
Felix, Benjamin B.
Fellows, William K.
Felsenthal, Edward George
Feltman, Charles H.
Fergus, Robert C.
Fernald, Robert W.
Fetcher, Edwin S.
Fetzer, Wade
Fies, Mrs. E. E.
Filek, August
Findlay, Mrs. Roderick
Fineman, Oscar
Finley, Max H.
Finnerud, Dr. Clark W.
Fischel, Frederic A.
Fish, Mrs. Isaac
Fishbein, Dr. Morris
Fisher, Mrs. Edward Metcalf
Fisher, Harry M.
Fitzpatrick, Mrs. John A.
Flavin, Edwin F.
Fleming, Mrs. Joseph B.
Flesch, Eugene W. P.
Flexner, Washington
Flood, Walter H.
Florsheim, Irving S.
Florsheim, Mrs. Milton S.
Flosdorf, Mrs. G. E.
Foley, Rev. William M.
Follansbee, Mitchell D.
Folonie, Mrs. Robert J.
Folsom, Mrs. Richard S.
Foote, Peter
Forch, Mrs. John L., Jr.
Foreman, Mrs. Alfred K.
Foreman, Mrs. E. G.
Foreman, Edwin G., Jr.
Foreman, Mrs. Gerhard
Foreman, Harold E.
Forgan, James B., Jr.
Forgan, Mrs. J. Russell
Forgan, Robert D.
Forman, Charles
Forstall, James J.
Fortune, Miss Joanna
Foster, Mrs. Charles K.
Foster, Volney
Fowler, Miss Elizabeth
Fox, Charles E.
Fox, Jacob Logan
Fox, Dr. Paul C.
Fox, Dr. Philip
Frank, Arthur A.
Frank, Dr. Ira
Frank, Mrs. Joseph K.
Frankenstein, William B.
Frankenthal, Dr. Lester E., Jr.
Frazer, Mrs. George E.
Freedman, Dr. I. Val
Freeman, Charles Y.
Freer, Archibald E.
French, Dudley K.

Frenier, A. B.
Freudenthal, G. S.
Freund, Charles E.
Frey, Charles Daniel
Freyn, Henry J.
Fridstein, Meyer
Friedlander, Jacob
Friedlich, Mrs. Herbert
Friedman, Mrs. Isaac K.
Friend, Mrs. Henry K.
Friestedt, Arthur A.
Frisbie, Chauncey O.
Frost, Mrs. Charles Sumner
Fuller, Mrs. Charles
Fuller, Mrs. Gretta Patterson
Fuller, Judson M.
Fuller, Leroy W.
Furry, William S.
Furst, Eduard A.

Gabathuler, Miss Juanita
Gaertner, William
Gale, G. Whittier
Gale, Henry G.
Gall, Charles H.
Gall, Harry T.
Gallagher, Mrs. John J.
Gallagher, Vincent G.
Gallup, Rockwell
Galt, Mrs. A. T.
Gamble, D. E.
Gamble, James A.
Gammage, Mrs. Adaline
Gann, David B.
Gansbergen, Mrs. F. H.
Garard, Elzy A.
Garcia, Jose
Garden, Hugh M. G.
Gardner, Addison L.
Gardner, Addison L., Jr.
Gardner, Henry A.
Gardner, Mrs. James P.
Garrison, Dr. Lester E.
Gary, Fred Elbert
Gately, Ralph M.
Gates, Mrs. L. F.
Gawne, Miss Clara V.
Gay, Rev. A. Royal
Gaylord, Duane W.
Gear, H. B.
Gehl, Dr. W. H.
Gehrmann, Felix
Geiger, Alfred B.
Gentz, Miss Margaret Nina
George, Mrs. Albert B.
Georgs, Fred W.
Gerding, R. W.
Geringer, Charles M.
Gerngross, Mrs. Leo
Gerts, Walter S.
Gettelman, Mrs. Sidney H.
Getz, Mrs. James R.
Getzoff, E. B.
Gibbs, Dr. John Phillip
Gibson, Dr. Stanley
Gielow, Walter C.
Gifford, Mrs. Frederick C.
Gilbert, Miss Clara C.
Gilchrist, Mrs. John F.
Gilchrist, Mrs. William Albert
Giles, Carl C.
Gillette, Mrs. Ellen D.
Gillman, Morris
Gillson, Louis K.
Ginther, Miss Minnie C.
Girard, Mrs. Anna
Glaescher, Mrs. G. W.
Glasgow, H. A.
Glasner, Rudolph W.
Godehn, Paul M.
Goedke, Charles F.
Goehst, Mrs. John Henry
Goes, Mrs. Arthur A.
Golden, Dr. Isaac J. K.
Goldenberg, Sidney D.
Goldfine, Dr. Ascher H. C.
Golding, Robert N.
Goldstine, Dr. Mark T.
Goldy, Walter I.
Goltra, Mrs. William B.
Goode, Mrs. Rowland T.
Gooden, G. E.
Goodkind, Dr. Maurice L.
Goodman, Benedict K.
Goodman, Mrs. Milton F.
Goodman, W. J.
Goodman, William E.
Goodwin, Clarence Norton
Goodwin, George S.
Gordon, Miss Bertha F.
Gordon, Harold J.
Gordon, Mrs. Robert D.
Gorrell, Mrs. Warren
Gradle, Dr. Harry S.
Graf, Robert J.
Graff, Oscar C.
Graham, Douglas
Graham, E. V.
Graham, Miss Margaret H.
Gramm, Mrs. Helen
Granger, Alfred
Granger, Mrs. Everett J.
Grant, James D.
Grant, John G.
Graves, Howard B.
Grawoig, Allen
Green, Miss Mary Pomeroy
Green, Robert D.
Green, Zola C.
Greenberg, Andrew H.
Greenburg, Dr. Ira E.
Greene, Henry E.
Greenebaum, James E.
Greenebaum, M. E., Jr.
Greenlee, James A.
Greenlee, Mrs. William Brooks
Greenman, Mrs. Earl C.
Gregory, Clifford V.
Gregory, Mrs. Robert B.
Gregory, Stephen S., Jr.
Gregory, Tappan
Grey, Charles F.
Grey, Dr. Dorothy
Griest, Mrs. Marianna L.
Griffenhagen, Mrs. Edwin O.
Griffith, Mrs. Carroll L.
Griffith, E. L.
Griffith, Mrs. William
Griffiths, George W.
Grimm, Walter H.
Griswold, Harold T.
Grizzard, James A.
Gronkowski, Rev. C. I.
Groot, Cornelius J.
Groot, Lawrence A.
Gross, Henry R.
Grossman, Frank I.
Grotenhuis, Mrs. William J.
Grotowski, Dr. Leon
Gruhn, Alvah V.
Grulee, Lowry K.
Grunow, Mrs. William C.
Guenzel, Louis
Guest, Ward E.
Gundlach, Ernest T.
Gunthorp, Walter J.
Gurley, Miss Helen K.
Gwinn, William R.

Haas, Adolph R.
Haas, Maurice
Haas, Dr. Raoul R.
Hadley, Mrs. Edwin M.
Hagen, Mrs. Daise
Hagen, Fred J.
Hagens, Dr. Garrett J.
Hagner, Fred L.
Haight, George I.
Hair, T. R.
Hajicek, Rudolph F.
Haldeman, Walter S.
Hale, Mrs. Samuel

Hale, William B.
Hall, David W.
Hall, Edward B.
Hall, Mrs. J. B.
Hallmann, August F.
Hallmann, Herman F.
Halperin, Aaron
Hamill, Charles H.
Hamill, Mrs. Ernest A.
Hamill, Robert W.
Hamilton, Thomas B.
Hamlin, Paul D.
Hamm, Fred B.
Hammerschmidt, Mrs. George F.
Hammitt, Miss Frances M.
Hammond, Thomas S.
Hand, George W.
Hanley, Henry L.
Hann, J. Roberts
Hansen, Mrs. Carl
Hansen, Jacob W.
Harder, John H.
Hardie, George F.
Hardin, John H.
Harding, Charles F., Jr.
Harding, George F.
Harding, John Cowden
Harding, Richard T.
Hardinge, Franklin
Harker, H. L.
Harms, John V. D.
Harper, Alfred C.
Harris, Mrs. Abraham
Harris, David J.
Harris, Gordon L.
Harris, Hayden B.
Hart, Mrs. Herbert L.
Hart, William M.
Hartmann, A. O.
Hartshorn, Kenneth L.
Hartwig, Otto J.
Hartz, W. Homer
Harvey, Hillman H.
Harvey, Richard M.
Harwood, Thomas W.
Haskell, Mrs. George E.
Haugan, Oscar H.
Havens, Samuel M.
Hay, Mrs. William Sherman
Hayes, Charles M.
Hayes, Harold C.
Hayes, Miss Mary E.
Haynie, Miss Rachel W.
Hays, Mrs. Arthur A.
Hayslett, Arthur J.
Hazlett, Dr. William H.
Healy, Mrs. Marquette A.
Heaney, Dr. N. Sproat
Heaton, Harry E.
Heaton, Herman C.
Heberlein, Miss Amanda F.
Heck, John
Hedberg, Henry E.
Heide, John H., Jr.
Heidke, Herman L.
Heiman, Marcus
Heine, Mrs. Albert
Heineman, Oscar
Heinzelman, Karl
Heinzen, Mrs. Carl
Hejna, Joseph F.
Heldmaier, Miss Marie
Helfrich, J. Howard
Heller, Albert
Heller, John A.
Heller, Mrs. Walter E.
Hellman, George A.
Hellyer, Walter
Hemple, Miss Anne C.
Henderson, Thomas B. G.
Henkel, Frederick W.
Henley, Dr. Eugene H.
Hennings, Mrs. Abraham J.
Henry, Huntington B.
Henry, Otto
Henschel, Edmund C.
Henshaw, Mrs. Raymond S.
Herrick, Charles E.
Herrick, Miss Louise
Herrick, Walter D.
Herron, James C.
Herron, Mrs. Ollie L.
Hershey, J. Clarence
Hertz, Mrs. Fred
Herwig, George
Herwig, William D., Jr.
Heun, Arthur
Heverly, Earl L.
Hibbard, Mrs. Angus S.
Hibbard, Mrs. W. G.
Hicks, E. L., Jr.
Higgins, John
Higinbotham, Harlow D.
Higley, Mrs. Charles W.
Hildebrand, Eugene, Jr.
Hildebrand, Grant M.
Hill, Mrs. E. M.
Hill, Mrs. Russell D.
Hill, William E.
Hille, Dr. Hermann
Hillebrecht, Herbert E.
Hillis, Dr. David S.
Hills, Edward R.
Himrod, Mrs. Frank W.
Hinkle, Ross O.
Hinman, Mrs. Estelle S.
Hinrichs, Henry, Jr.
Hinsberg, Stanley K.
Hintz, John C.
Hirsch, Jacob H.
Hiscox, Morton
Histed, J. Roland
Hixon, Mrs. Frank P.
Hodgkinson, Mrs. W. R.
Hoffman, Glen T.
Hoffmann, Miss Caroline Dickinson
Hoffmann, Edward Hempstead
Hogan, Robert E.
Hohman, Dr. E. H.
Hoier, William V.
Holden, Edward A.
Holland, Dr. William E.
Holliday, W. J.
Hollingsworth, R. G.
Hollis, Henry L.
Hollister, Francis H.
Holmes, George J.
Holmes, Miss Harriet F.
Holmes, Mrs. Maud G.
Holmes, William
Holmes, William N.
Holt, Miss Ellen
Homan, Miss Blossom L.
Honsik, Mrs. James M.
Hoover, F. E.
Hoover, Mrs. Frank K.
Hoover, Mrs. Fred W.
Hoover, H. Earl
Hoover, Ray P.
Hope, Alfred S.
Hopkins, Farley
Hopkins, Mrs. James M.
Horan, Dennis A.
Horcher, William W.
Horne, Mrs. William Dodge, Jr.
Horner, Dr. David A.
Horner, Mrs. Maurice L., Jr.
Hornung, Joseph J.
Horst, Curt A.
Horton, George T.
Horton, Hiram T.
Horton, Horace B.
Hosbein, Louis H.
Hosmer, Philip B.
Hottinger, Adolph
Howard, Willis G.
Howe, Charles Arthur
Howe, Clinton W.
Howe, Mrs. Pierce Lyman
Howe, Warren D.
Howe, William G.
Howell, Albert S.
Howell, William
Howse, Richard

Hoyne, Thomas Temple
Hoyt, Mrs. Phelps B.
Hubbard, George W.
Huber, Dr. Harry Lee
Hudson, Mrs. H. Newton
Hudson, Walter L.
Huey, Mrs. A. S.
Huff, Thomas D.
Hufty, Mrs. F. P.
Huggins, Dr. Ben H.
Hughes, George A.
Hughes, John E.
Hughes, John W.
Hulbert, Mrs. Charles Pratt
Hulbert, Mrs. Milan H.
Hume, John T.
Humphrey, H. K.
Huncke, Herbert S.
Huncke, Oswald W.
Hunter, Samuel M.
Hurley, Edward N., Jr.
Huston, Ward T.
Huszagh, R. LeRoy
Huszagh, Ralph D.
Hutchinson, Foye P.
Hutchinson, Samuel S.
Hyatt, R. C.

Ickes, Raymond
Idelman, Bernard
Ilg, Robert A.
Inlander, Samuel
Irons, Dr. Ernest E.
Isaacs, Charles W., Jr.
Isham, Henry P.
Ives, Clifford E.

Jackson, Allan
Jackson, Archer L.
Jackson, Miss Laura E.
Jacobi, Miss Emily C.
Jacobs, Hyman A.
Jacobs, Julius
Jacobs, Louis G.
Jacobs, Walter H.
Jacobs, Whipple
Jacobson, Raphael
Jaffray, Mrs. David S.
James, Edward P.
James, William R.
Jameson, Clarence W.
Janusch, Fred W.
Jaques, Mrs. Louis Tallmadge
Jarchow, Mrs. C. E.
Jarchow, Charles C.
Jarratt, Mrs. Walter J.
Jeffries, F. L.
Jenkins, David F. D.
Jenkins, Mrs. John E.
Jenkinson, Mrs. Arthur Gilbert
Jenks, William Shippen
Jennings, Ode D.
Jennings, Mrs. Rosa V.
Jerger, Wilbur Joseph
Jetzinger, David
Jirka, Dr. Frank J.
Jirka, Dr. Robert H.
John, Dr. Findley D.
Johnson, Alvin O.
Johnson, Arthur L.
Johnson, H. C.
Johnson, Mrs. Harley Alden
Johnson, Isaac Horton
Johnson, Joseph F.
Johnson, Nels E.
Johnson, Mrs. O. W.
Johnson, Olaf B.
Johnson, Philip C.
Johnston, Arthur C.
Johnston, Edward R.
Johnston, Mrs. Hubert McBean
Johnston, Mrs. M. L.
Johnstone, George A.
Johnstone, Dr. Mary M. S.
Jones, Albert G.
Jones, G. Herbert
Jones, James B.
Jones, Dr. Margaret M.
Jones, Melvin
Jones, Miss Susan E.
Jones, Warren G.
Joseph, Louis L.
Joy, Guy A.
Joyce, Joseph
Judson, Clay
Juergens, H. Paul
Julien, Victor R.
Junkunc, Stephen

Kaercher, A. W.
Kahn, Gus
Kahn, J. Kesner
Kahn, Louis
Kaine, James B.
Kane, Jerome M.
Kanter, Jerome J.
Kaplan, Nathan D.
Karcher, Mrs. Leonard D.
Karpen, Michael
Kaspar, Otto
Katz, Mrs. Sidney L.
Katzenstein, Mrs. George P.
Kauffman, Mrs. R. K.
Kauffmann, Alfred
Kavanagh, Clarence H.
Kavanagh, Maurice F.
Kay, Mrs. Marie E.
Keefe, Mrs. George I.
Keehn, George W.
Keene, Mrs. Joseph
Keeney, Albert F.
Kehl, Robert Joseph
Keith, Stanley
Kelker, Rudolph F., Jr.
Kellogg, John L.
Kelly, Edward T.
Kelly, Mrs. Haven Core
Kemp, Mrs. E. M.
Kempner, Harry B.
Kempner, Stan
Kendall, Mrs. Virginia H.
Kendrick, John F.
Kennedy, Mrs. E. J.
Kennedy, Miss Leonore
Kennedy, Lesley
Kennelly, Martin H.
Kent, Dr. O. B.
Keogh, Gordon E.
Kern, Trude
Kersey, Glen B.
Kerwin, Edward M.
Kesner, Jacob L.
Kestnbaum, Meyer
Kiessling, Mrs. Charles S.
Kilbourne, L. B.
Kile, Miss Jessie J.
Kimball, Mrs. Curtis N.
Kimball, William W.
Kimbark, Mrs. Eugene Underwood
Kimbark, John R.
King, Joseph H.
Kingman, Mrs. Arthur G.
Kinsey, Frank
Kinsey, Robert S.
Kintzel, Richard
Kircher, Rev. Julius
Kirchheimer, Max
Kirkland, Mrs. Weymouth
Kitchell, Howell W.
Kittredge, R. J.
Kitzelman, Otto
Klein, Arthur F.
Klein, Henry A.
Klein, Mrs. Samuel
Kleinpell, Dr. Henry H.
Kleist, Mrs. Harry
Kleppinger, William H.
Kleutgen, Dr. Arthur C.
Kline, Sol
Klinetop, Mrs. Charles W.
Knopf, Andrew J.
Knott, Mrs. Stephen R.
Knox, Harry S.
Knutson, George H.

Koch, Paul W.
Koch, Raymond J.
Kochs, August
Kochs, Mrs. Robert T.
Kohl, Mrs. Caroline L.
Kohler, Eric L.
Kohlsaat, Edward C.
Komiss, David S.
Konsberg, Alvin V.
Kosobud, William F.
Kotal, John A.
Kotin, George N.
Koucky, Dr. J. D.
Kovac, Stefan
Kraber, Mrs. Fredericka
Kraft, C. H.
Kraft, James L.
Kraft, Norman
Kralovec, Emil G.
Kralovec, Mrs. Otto J.
Kramer, Leroy
Kraus, Peter J.
Kraus, Samuel B.
Krause, John J.
Kretschmer, Dr. Herman L.
Kritchevsky, Dr. Wolff
Kroehl, Howard
Kropff, C. G.
Krost, Dr. Gerard N.
Krueger, Leopold A.
Krutckoff, Charles
Kuehn, A. L.
Kuh, Mrs. Edwin J., Jr.
Kuhl, Harry J.
Kuhn, Frederick T.
Kuhn, Dr. Hedwig S.
Kunka, Bernard J.
Kunstadter, Albert
Kunstadter, Sigmund W.
Kurtzon, Morris

Lacey, Miss Edith M.
LaChance, Mrs. Leander H.
Laflin, Mrs. Louis E.
Laflin, Louis E., Jr.
Lampert, Wilson W.
Lamson, W. A.
Lanahan, Mrs. M. J.
Landry, Alvar A.
Lane, F. Howard
Lane, Ray E.
Lane, Wallace R.
Lang, Edward J.
Lang, Mrs. W. J.
Lange, Mrs. August
Langenbach, Mrs. Alice R.
Langhorne, George Tayloe
Langworthy, Benjamin Franklin
Lanman, E. B.
Lansinger, Mrs. John M.
Larimer, Howard S.
Larson, Mrs. George E.
Lashley, Mrs. Karl S.
Lasker, Albert D.
Lau, Max
Lauren, Newton B.
Lauter, Mrs. Vera
Lautmann, Herbert M.
Lavezzorio, Mrs. J. B.
Lavidge, Arthur W.
Law, Mrs. Robert O.
Lawless, Dr. Theodore K.
Lawson, A. J.
Lawton, Frank W.
Laylander, O. J.
Leahy, Thomas F.
Leavell, James R.
Leavitt, Mrs. Wellington
Lebold, Foreman N.
Lebold, Samuel N.
Lebolt, John Michael
Lederer, Dr. Francis L.
Lee, David Arthur
Lee, Mrs. John H. S.
Lefens, Miss Katherine J.
Lefens, Walter C.
Lehmann, Miss Augusta E.
Leichenko, Peter M.
Leight, Mrs. Albert E.
Leistner, Oscar
Leland, Miss Alice J.
Leland, Mrs. Roscoe G.
LeMoon, A. R.
Lenz, J. Mayo
Leonard, Arthur G.
Leonard, Arthur T.
Letts, Mrs. Frank C.
Leverone, Louis E.
Levinson, Mrs. Salmon O.
Levis, Mrs. Albert Cotter
Levitan, Benjamin
Levitetz, Nathan
Levy, Alexander M.
Levy, Arthur G.
Lewis, David R.
Lewy, Dr. Alfred
Libby, Mrs. C. P.
Liebman, A. J.
Ligman, Rev. Thaddeus
Lillie, Frank R.
Lindahl, Mrs. Edward J.
Linden, John A.
Lindheimer, B. F.
Lindholm, Charles V.
Lindquist, J. E.
Lingle, Bowman C.
Linton, Ben B.
Lipman, Robert R.
Liss, Samuel
Little, Mrs. E. H.
Littler, Harry E., Jr.
Livingston, Julian M.
Livingston, Mrs. Milton L.
Llewellyn, Paul
Lloyd, Edward W.
Lloyd, William Bross
Lobdell, Mrs. Edwin L.
Lockwood, W. S.
Loeb, Mrs. A. H.
Loeb, Hamilton M.
Loeb, Jacob M.
Loeb, Leo A.
Loesch, Frank J.
Loewenberg, Israel S.
Loewenberg, M. L.
Loewenstein, Sidney
Loewenthal, Richard J.
Logan, L. B.
Long, Mrs. Joseph B.
Long, William E.
Lord, Arthur R.
Lord, Mrs. Russell
Loucks, Charles O.
Louer, Albert S.
Love, Chase W.
Lovell, William H.
Lovgren, Carl
Lownik, Dr. Felix J.
Lucey, Patrick J.
Ludington, Nelson J.
Ludolph, Wilbur M.
Lueder, Arthur C.
Lufkin, Wallace W.
Luria, Herbert A.
Lurie, H. J.
Lustgarten, Samuel
Lutter, Henry J.
Lydon, Mrs. William A.
Lyford, Harry B.
Lynch, William Joseph
Lyon, Charles H.

Maass, J. Edward
MacDonald, E. K.
MacDougal, Mrs. T. W.
Mackey, Frank J.
Mackinson, Dr. John C.
MacLeish, Mrs. Andrew
MacLellan, K. F.
Magan, Miss Jane A.
Magill, Henry P.
Magnus, Albert, Jr.
Magnuson, Mrs. Paul
Maher, Mrs. D. W.
Main, Walter D.
Malone, William H.
Manaster, Harry
Mandel, Mrs. Aaron W.

Mandel, Edwin F.
Mandel, Mrs. Emanuel
Mandel, Miss Florence
Mandel, Mrs. Robert
Manegold, Mrs. Frank W.
Manierre, Francis E.
Manierre, Louis
Manley, John A.
Mann, Albert C.
Mann, John P.
Manning, Miss Cordelia Ann
Marcus, Maurice S.
Mark, Mrs. Cyrus
Marks, Arnold K.
Marquis, A. N.
Marsh, A. Fletcher
Marsh, John McWilliams, II
Marsh, Mrs. John P.
Marsh, Mrs. Marshall S.
Martin, Mrs. Franklin H.
Martin, George F.
Martin, Samuel H.
Martin, W. B.
Martin, Wells
Marx, Frederick Z.
Marzluff, Frank W.
Marzola, Leo A.
Mason, Willard J.
Massee, B. A.
Massena, Roy
Massey, Peter J.
Masterson, Peter
Mathesius, Mrs. Walther
Matson, J. Edward
Matter, Mrs. John
Matthiessen, Frank
Maurer, Dr. Siegfried
Maxwell, Lloyd R.
Mayer, Frank D.
Mayer, Mrs. Herbert G.
Mayer, Isaac H.
Mayer, Oscar F.
Mayer, Theodore S.
McAllister, Sydney G.
McArthur, Billings M.
McAuley, John E.
McBirney, Mrs. Hugh J.
McCahey, James B.
McCarthy, Edmond J.
McCarthy, Joseph W.
McClun, John M.
McCord, Downer
McCormack, Professor Harry
McCormick, Mrs. Alexander A.
McCormick, Mrs. Chauncey
McCormick, Fowler
McCormick, Howard H.
McCormick, Leander J.
McCormick, Robert H., Jr.
McCoy, Herbert N.
McCrea, Mrs. W. S.
McCready, Mrs. E. W.
McCreight, Miss Gladys Alizabeth
McCreight, Louis Ralph
McDonald, Lewis
McDougal, Mrs. James B.
McDougal, Mrs. Robert
McDougall, Mrs. Arthur R.
McErlean, Charles V.
McGarry, John A.
McGraw, Max
McGuinn, Edward B.
McGurn, Mathew S.
McHugh, Mrs. Grover
McIntosh, Arthur T.
McIntosh, Mrs. Walter G.
McKinney, Mrs. Hayes
McLaury, Mrs. C. W.
McLaury, Walker G.
McMenemy, L. T.
McMillan, James G.
McMillan, John
McMillan, W. B.
McMillan, William M.
McNamara, Louis G.
McNulty, Joseph D.
McQuarrie, Mrs. Fannie
McVoy, John M.
Mead, Dr. Henry C. A.
Medsker, Dr. Ora L.
Melcher, George Clinch
Melchione, Joseph
Melendy, Dr. R. A.
Melnick, Leopold B.
Merrell, John H.
Merriam, Miss Eleanor
Merrill, William W.
Merz, Edward E.
Metz, Dr. A. R.
Meyer, Mrs. A. H.
Meyer, Abraham W.
Meyer, Albert
Meyer, Charles Z.
Meyer, Sam R.
Meyer, William
Meyercord, George R.
Meyers, Erwin A.
Michaels, Everett B.
Midowicz, C. E.
Milhening, Frank
Milhening, Joseph
Miller, Miss Bertie E.
Miller, Charles B.
Miller, Mrs. Clayton W.
Miller, Mrs. Darius
Miller, Mrs. Donald J.
Miller, Mrs. F. H.
Miller, Hyman
Miller, John S.
Miller, Mrs. Olive Beaupre
Miller, Oscar C.
Miller, Mrs. Phillip
Miller, R. T.
Miller, Walter E.
Miller, Mrs. Walter H.
Miller, William S.
Mills, Allen G.
Mills, Fred L.
Mills, John, Sr.
Mills, Mrs. William S.
Miner, Dr. Carl S.
Miner, H. J.
Minotto, Mrs. James
Minturn, Benjamin E.
Mitchell, George F.
Mitchell, John J.
Mitchell, Mrs. John J.
Mitchell, Leeds
Mitchell, Oliver
Mock, Dr. Harry Edgar
Moderwell, Charles M.
Moeling, Mrs. Walter G.
Moeller, Rev. Herman H.
Moffatt, Mrs. Elizabeth M.
Mohr, William J.
Moist, Mrs. Samuel E.
Molloy, David J.
Moltz, Mrs. Alice
Monheimer, Henry I.
Monroe, William S.
Montgomery, Dr. Albert H.
Moore, C. B.
Moore, Philip Wyatt
Moos, Joseph B.
Moran, Brian T.
Moran, Miss Margaret
Morey, Charles W.
Morf, F. William
Morgan, Alden K.
Morgan, Mrs. Kendrick E.
Morris, Edward H.
Morris, Mrs. Seymour
Morrison, Mrs. C. R.
Morrison, Mrs. Charles E.
Morrison, Mrs. Harry
Morrison, James C.
Morrison, Matthew A.
Morrisson, James W.
Morse, Mrs. Charles J.
Morse, Leland R.
Morse, Mrs. Milton
Morse, Robert H.
Mortenson, Mrs. Jacob
Morton, Sterling

Morton, William Morris
Moses, Howard A.
Moss, Jerome A.
Mouat, Andrew J.
Mowry, Louis C.
Moyer, Mrs. Paul S.
Mudge, Mrs. John B.
Muehlstein, Mrs. Charles
Mueller, Austin M.
Mueller, Miss Hedwig H.
Mueller, J. Herbert
Mueller, Paul H.
Mulford, Miss Melinda Jane
Mulholand, William H.
Mulligan, George F.
Munroe, Moray
Murphy, Robert E.
Musselman, Dr. George H.

Naber, Henry G.
Nadler, Dr. Walter H.
Naess, Sigurd E.
Nahigian, Sarkis H.
Nash, Charles J.
Nathan, Claude
Nebel, Herman C.
Neely, Mrs. Lloyd F.
Nehls, Arthur L.
Neilson, Mrs. Francis
Nellegar, Mrs. Jay C.
Nelson, Arthur W.
Nelson, Charles G.
Nelson, Donald M.
Nelson, Murry
Nelson, N. J.
Nelson, Victor W.
Netcher, Mrs. Charles
Neu, Clarence L.
Neuffer, Paul A.
Neumann, Arthur E.
Newhall, R. Frank
Newhouse, Karl
Nichols, Mrs. George R.
Nichols, Mrs. George R., Jr.
Nichols, J. C.
Nichols, S. F.
Nicholson, Thomas G.
Nilsson, Mrs. Goodwin M.
Nitze, Mrs. William A.
Noble, Samuel R.
Nollau, Miss Emma
Noonan, Edward J.
Norman, Harold W.
Norris, Mrs. Lester
Norton, R. H.
Novak, Charles J.
Noyes, A. H.
Noyes, Allan S.
Noyes, David A.
Noyes, Mrs. May Wells
Nusbaum, Mrs. Carl B.
Nyman, Dr. John Egbert

Oates, James F.
Oberfelder, Herbert M.
Oberfelder, Walter S.
O'Brien, Frank J.
O'Brien, Miss Janet
Odell, William R.
Odell, William R., Jr.
O'Donnell, Miss Rose
Off, Mrs. Clifford
Offield, James R.
Oglesbee, Nathan H.
O'Keefe, Mrs. Dennis D.
Olcott, Mrs. Henry C.
Oldefest, Edward G.
O'Leary, John W.
Oliver, Gene G.
Oliver, Mrs. Paul
Olson, Gustaf
Oppenheimer, Alfred
Oppenheimer, Mrs. Harry D.
Orndoff, Dr. Benjamin H.
O'Rourke, Albert
Orr, Mrs. Robert C.
Orr, Thomas C.
Orthal, A. J.
Ortmayer, Dr. Marie
Osborn, Mrs Gertrude L.
Osborn, Theodore L.
Ostrom, Mrs. James Augustus
Otis, J. Sanford
Otis, Joseph E.
Otis, Joseph Edward, Jr.
Otis, Ralph C.
Otis, Stuart Huntington
Ouska, John A.
Overton, George W.
Owings, Mrs. Nathaniel A.

Paasche, Jens A.
Packard, Dr. Rollo K.
Paepcke, Walter P.
Page-Wood, Gerald
Pagin, Mrs. Frank S.
Pam, Miss Carrie
Pardridge, Albert J.
Pardridge, Mrs. E. W.
Park, R. E.
Parker, Frank B.
Parker, Dr. Gaston C.
Parker, Dr. J. William
Parker, Norman S.
Parker, Troy L.
Parks, C. R.
Parmelee, Dr. A. H.
Partridge, Lloyd C.
Paschen, Mrs. Henry
Patrick, Miss Catherine
Patrick, Dr. Hugh T.
Patterson, Mrs. L. B.
Patterson, Mrs. Wallace
Pauling, Edward G.
Payne, Professor James
Peabody, Mrs. Francis S.
Peabody, Howard B.
Peabody, Miss Susan W.
Peacock, Robert E.
Peacock, Walter C.
Pearl, Allen S.
Pearse, Langdon
Pearson, F. W.
Pearson, George Albert, Jr.
Peck, Dr. David B.
Peet, Mrs. Belle G.
Peirce, Albert E.
Pelley, John J.
Peltier, M. F.
PenDell, Charles W.
Percy, Dr. Nelson Mortimer
Perkins, A. T.
Perkins, Mrs. Herbert F.
Perry, Dr. Ethel B.
Perry, I. Newton
Peter, William F.
Peterkin, Daniel
Peters, Harry A.
Petersen, Jurgen
Petersen, Dr. William F.
Peterson, Albert
Peterson, Alexander B.
Peterson, Arthur J.
Peterson, Axel A.
Peterson, Mrs. Bertha I.
Pflaum, A. J.
Pflock, Dr. John J.
Phelps, Mason
Phelps, Mrs. W. L.
Phemister, Dr. Dallas B.
Phillips, Dr. Herbert Morrow
Phillips, Mervyn C.
Picher, Mrs. Oliver S.
Pick, Albert, Jr.
Pierce, J. Norman
Pierce, Paul, Jr.
Pirie, Mrs. John T.
Pitcher, Mrs. Henry L.
Pitzner, Alwin Frederick
Plapp, Miss Doris A.
Platt, Mrs. Robert S.
Plunkett, William H.
Podell, Mrs. Beatrice Hayes
Polk, Mrs. Stella F.
Pollock, Dr. Harry L.
Pomeroy, Mrs. Frank W.

Pond, Irving K.
Pontius, Dr. John R.
Pool, Marvin B.
Poole, Mrs. Frederick Arthur
Poole, George A.
Poole, Mrs. Ralph H.
Poor, Fred A.
Pope, Frank
Pope, Henry
Pope, Herbert
Poppenhagen, Henry J.
Porter, Mrs. Frank S.
Porter, Henry H.
Porter, James F.
Porter, Mrs. Sidney S.
Porterfield, Mrs. John F.
Post, Frederick, Jr.
Post, Mrs. Philip Sidney
Pottenger, William A.
Pottenger, Miss Zipporah Herrick
Powell, Isaac N.
Prahl, Frederick A.
Pratt, Mrs. William E.
Prentice, John K.
Primley, Walter S.
Prince, Rev. Herbert W.
Prince, Leonard M.
Proxmire, Dr. Theodore Stanley
Prussing, Mrs. R. E.
Puckey, F. W.
Pulver, Hugo
Purcell, Joseph D.
Purdy, Sparrow E.
Pusey, Dr. William Allen
Putnam, Miss Mabel C.
Pyterek, Rev. Peter H.

Quick, Miss Hattiemae
Quigley, William J.

Raber, Franklin
Racheff, Ivan
Radau, Hugo
Radford, Mrs. W. A., Jr.
Radniecki, Rev. Stanley
Raff, Mrs. Arthur
Raftree, Miss Julia M.
Railton, Miss Frances
Raithel, Miss Luella
Ramis, Leon Lipman
Randall, Charles P.
Randall, Rev. Edwin J.
Randall, Irving
Randle, Mrs. Charles H.
Raney, Mrs. R. J.
Rankin, Miss Jessie H.
Raymond, Mrs. Howard D.
Razim, A. J.
Reach, Benjamin F.
Reach, William
Redington, F. B.
Reed, Mrs. Frank D.
Reed, Mrs. Kersey Coates
Reed, Norris H.
Reed, Mrs. Philip L.
Reeve, Mrs. Earl
Reeve, Frederick E.
Reffelt, Miss F. A.
Regenstein, Joseph
Regensteiner, Theodore
Regnery, William H.
Reich, Miss Annie
Reichmann, Alexander F.
Reid, Mrs. Bryan
Remy, Mrs. William
Renshaw, Mrs. Charles
Renwick, Edward A.
Rew, Mrs. Irwin
Reynolds, Harold F.
Reynolds, Mrs. J. J.
Rice, Arthur L.
Rice, Mrs. Charles R.
Rice, George L.
Rice, Laurence A.
Rich, Elmer
Richards, J. DeForest
Richards, Marcus D.
Richardson, George A.
Richardson, Guy A.
Richter, Mrs. Adelyn W.
Rickcords, Francis S.
Ricketts, C. Lindsay
Riddle, Herbert H.
Ridgeway, Ernest
Ridgway, William
Riemenschneider, Mrs. Julius H.
Ries, Dr. Emil
Rieser, Mrs. Herman
Rieser, Leonard M.
Rietz, Elmer W.
Rietz, Walter H.
Rinder, E. W.
Ring, Miss Mary E.
Ripstra, J. Henri
Rittenhouse, Charles J.
Roberts, Clark T.
Roberts, Mrs. John
Roberts, John M.
Roberts, Dr. S. M.
Roberts, Shepherd M.
Roberts, Mrs. Warren R.
Roberts, William Munsell
Robson, Miss Sarah C.
Roche, Miss Emily
Rockwell, Harold H.
Roderick, Solomon P.
Rodgers, Dr. David C.
Rodman, Thomas Clifford
Roehling, Mrs. Otto G.
Roehm, George R.
Roesch, Frank P.
Rogers, Miss Annie T.
Rogers, Mrs. Bernard F.
Rogers, Dr. Cassius C.
Rogers, Joseph E.
Rogers, Walter A.
Rogerson, Everett E.
Rolfes, Gerald A.
Romer, Miss Dagmar E.
Root, John W.
Rosborough, Dr. Paul A.
Rosen, M. R.
Rosenbaum, Mrs. Edwin S.
Rosenfeld, Mrs. Maurice
Rosenfield, Mrs. Morris S.
Rosenfield, William M.
Rosenthal, James
Rosenthal, Kurt
Rosenthal, Lessing
Rosenwald, Mrs. Julius
Rosenwald, Richard M.
Ross, Robert C.
Ross, Mrs. Robert E.
Ross, Thompson
Ross, Walter S.
Roth, Aaron
Roth, Mrs. Margit Hochsinger
Rothacker, Watterson R.
Rothschild, George William
Rothschild, Maurice L.
Rothschild, Melville N.
Routh, George E., Jr.
Rowe, Edgar C.
Rozelle, Mrs. Emma
Rubel, Dr. Maurice
Rubens, Mrs. Charles
Rubovits, Theodore
Ruckelhausen, Mrs. Henry
Rueckheim, Miss Lillian
Ruel, John G.
Ruettinger, John W.
Rushton, Joseph A.
Russell, Dr. Joseph W.
Russell, Paul S.
Rutledge, George E.
Ryan, Mrs. William A.
Ryerson, Mrs. Edward L.
Ryerson, Joseph T.

Sackley, Mrs. James A.
Sage, W. Otis

Salisbury, Mrs. Warren M.
Salmon, Mrs. E. D.
Sammons, Wheeler
Sample, John Glen
Sandidge, Miss Daisy
Sands, Mrs. Frances B.
Santini, Mrs. Randolph
Sardeson, Orville A.
Sargent, Chester F.
Sargent, John R. W.
Sargent, Ralph
Sauter, Fred J.
Sawyer, Dr. Alvah L.
Schacht, John H.
Schafer, O. J.
Schaffner, Mrs. Joseph
Schaffner, Robert C.
Scheidenhelm, Edward L.
Scheinman, Jesse D.
Schermerhorn, W. I.
Schlake, William
Schmidt, Adolf
Schmidt, Dr. Charles L.
Schmidt, Mrs. Minna
Schmitz, Dr. Henry
Schneider, F. P.
Schnering, Otto Y.
Schnur, Ruth A.
Scholl, Dr. William M.
Schram, Harry S.
Schreiner, Sigurd
Schroeder, Dr. George H.
Schukraft, William
Schulman, A. S.
Schulze, Mrs. Mathilde
Schulze, William
Schupp, Philip C.
Schuyler, Mrs. Daniel J., Jr.
Schwanke, Arthur
Schwartz, Charles K.
Schwartz, Charles P.
Schwarz, Herbert E.
Schwarzhaupt, Emil
Sclanders, Mrs. Alexander
Scott, Robert L.
Scribner, Gilbert
Scully, Mrs. D. B.
Seames, Mrs. Charles O.
Sears, Miss Dorothy
Sears, J. Alden
Sears, Richard W., Jr.
Seaton, G. Leland
Seaverns, George A.
Seaverns, Louis C.
Sedgwick, C. Galen
See, Dr. Agnes Chester
Seeberger, Miss Dora A.
Seeburg, Justus P.
Seifert, Mrs. Walter J.
Seip, Emil G.
Seipp, Clarence T.
Seipp, Edwin A.
Seipp, Edwin A., Jr.
Seipp, William C.
Sello, George W.
Sencenbaugh, Mrs. C. W.
Seng, Frank J.
Seng, V. J.
Senne, John A.
Sennekohl, Mrs. A. C.
Shaffer, Carroll
Shaffer, Charles B.
Shambaugh, Dr. George E.
Shanesy, Ralph D.
Shannon, Angus Roy
Shapiro, Meyer
Sharpe, N. M.
Shaw, Alfred P.
Shaw, Mrs. Arch W.
Shaw, Theodore A.
Sheldon, James M.
Shelton, Dr. W. Eugene
Shepherd, Mrs. Edith P.
Sherman, Mrs. Francis C., Sr.
Shields, James Culver
Shillestad, John N.
Shire, Moses E.
Shoan, Nels
Shorey, Clyde E.
Short, J. R.
Short, Miss Shirley Jane
Shoup, A. D.
Shumway, Mrs. Edward DeWitt
Sidley, William P.
Siebel, Mrs. Ewald H.
Sigman, Leon
Silander, A. I.
Silberman, Charles
Silberman, David B.
Silberman, Hubert S.
Sills, Clarence W.
Silverthorne, George M.
Simond, Robert E.
Simonds, Dr. James P.
Sincere, Ben E.
Sinclair, Dr. J. Frank
Singer, Mrs. Mortimer H.
Sitzer, Dr. L. Grace Powell
Skleba, Dr. Leonard F.
Skooglund, David
Sleeper, Mrs. Olive C.
Smith, Mrs. Charles R.
Smith, Mrs. E. A.
Smith, Mrs. Emery J.
Smith, Mrs. Frank S.
Smith, Franklin P.
Smith, Harold Byron
Smith, Mrs. Hermon Dunlap
Smith, Jens
Smith, Jesse E.
Smith, Mrs. Katherine Walker
Smith, Mrs. Kinney
Smith, Miss Marion D.
Smith, Samuel K.
Smith, Mrs. Theodore White
Smith, Walter Bourne
Smith, Walter Byron
Smith, Mrs. William A.
Smith, Z. Erol
Smullan, Alexander
Snow, Fred A.
Snyder, Harry
Socrates, Nicholas
Solem, Dr. George O.
Sonnenschein, Hugo
Sonnenschein, Dr. Robert
Sonneveld, Jacob
Soper, Henry M.
Soper, James P., Jr.
Sopkin, Mrs. Setia H.
Soravia, Joseph
Sorensen, James
Spencer, Mrs. Egbert H.
Spencer, Mrs. William M.
Spiegel, Mrs. Frederick W.
Spiegel, Mrs. Mae O.
Spitz, Joel
Spitz, Leo
Spitzglass, Mrs. Leonard M.
Spohn, John F.
Spooner, Charles W.
Spoor, Mrs. John A.
Sprague, Dr. John P.
Spray, Cranston
Squires, John G.
Staack, Otto C.
Stacey, Mrs. Thomas I.
Staley, Miss Mary B.
Stanton, Dr. E. M.
Stanton, Edgar
Stanton, Henry T.
Starbird, Miss Myrtle I.
Stark, Mrs. Harold
Starrels, Joel
Stearns, Mrs. Richard I.
Stebbins, Fred J.
Steele, W. D.
Steffey, David R.
Stein, Benjamin F.
Stein, Dr. Irving
Stein, L. Montefiore
Stenson, Frank R.
Sterba, Dr. Joseph V.
Stern, Alfred Whital
Stern, David B.
Stern, Felix

Stern, Maurice S.
Stern, Oscar D.
Stevens, Delmar A.
Stevens, Edward J.
Stevens, Elmer T.
Stevens, Harold L.
Stevens, Mrs. James W.
Stevens, R. G.
Stevenson, Dr. Alexander F.
Stevenson, Engval
Stewart, Miss Agnes Nannie
Stewart, Miss Eglantine Daisy
Stewart, James S.
Stewart, Miss Mercedes Graeme
Stibolt, Mrs. Carl B.
Stiger, Charles W.
Stirling, Miss Dorothy
Stockton, Eugene M.
Stone, Mrs. Jacob S.
Straus, David
Straus, Martin L.
Straus, Melvin L.
Straus, S. J. T.
Strauss, Dr. Alfred A.
Strauss, Henry X.
Strauss, John L.
Street, Mrs. Charles A.
Stromberg, Charles J.
Strong, Edmund H.
Strong, Mrs. Walter A.
Strotz, Harold C.
Struby, Mrs. Walter V.
Stulik, Dr. Charles
Sturges, Solomon
Sullivan, John J.
Sulzberger, Frank L.
Sutcliffe, Mrs. Gary
Sutherland, William
Sutton, Harold I.
Swan, Oscar H.
Swanson, Joseph E.
Swartchild, Edward G.
Swartchild, William G.
Swenson, S. P. O.
Swett, Robert Wheeler
Swiecinski, Walter
Swift, Mrs. Alden B.
Swift, Edward F., Jr.
Sykes, Mrs. Wilfred
Sylvester, Miss Ada I.

Taft, John H.
Taft, Mrs. Oren E.
Tarrant, Robert
Tatge, Mrs. Gustavus J.
Taylor, Charles C.
Taylor, Frank F.
Taylor, George Halleck
Taylor, J. H.
Taylor, L. S.
Teagle, E. W.
Templeton, Stuart J.
Templeton, Walter L.
Templeton, Mrs. William
Terry, Foss Bell
Teter, Lucius
Thatcher, Everett A.
Theobald, Dr. John J.
Thomas, Emmet A.
Thomas, Frank W.
Thomas, Mrs. Harry L.
Thomas, Dr. William A.
Thompson, Arthur H.
Thompson, Charles E.
Thompson, Edward F.
Thompson, Floyd E.
Thompson, Fred L.
Thompson, Dr. George F.
Thompson, Mrs. John R.
Thompson, John R., Jr.
Thompson, Mrs. Leverett
Thorne, Hallett W.
Thorne, James W.
Thornton, Dr. Francis E.
Thorp, Harry W.
Thresher, C. J.
Thulin, F. A.
Tibbetts, Mrs. N. L.
Tighe, Mrs. Bryan G.
Tilden, Averill
Tilden, Louis Edward
Tilt, Charles A.
Titzel, Dr. W. R.
Tobey, William Robert
Tobias, Clayton H.
Torbet, A. W.
Touchstone, John Henry
Towle, Leroy C.
Towler, Kenneth F.
Towne, Mrs. John D. C.
Traylor, Mrs. Dorothy J.
Tredwell, John
Tripp, Chester D.
Trombly, Dr. F. F.
Trude, Mrs. Mark W.
True, Charles H.
Turner, Alfred M.
Turner, Tracy L.
Tuthill, Mrs. Beulah L.
Tuthill, Gray B.
Tuttle, Emerson
Tuttle, F. B.
Tuttle, Mrs. Henry N.
Tyler, Mrs. Orson K.

Ullman, Mrs. N. J.
Ullmann, Herbert S.
Upham, Mrs. Frederic W.
Vacin, Emil F.
Valentine, Joseph L.
Valentine, Mrs. May L.
Valentine, Patrick A.
VanArtsdale, Mrs. Flora
VanCleef, Mrs. Noah
VanCleef, Paul
VanDeventer, Christopher
Vanek, John C.
VanNess, Gardiner B.
VanSchaack, R. H., Jr.
VanWinkle, James Z.
VanZwoll, Henry B.
Vaughan, Leonard H.
Vawter, William A., II
Veeder, Miss Jessie
Vehe, Dr. K. L.
Vehon, Morris
Vial, Charles H.
Vial, F. K.
Vial, Miss Mary M.
Vickery, Miss Mabel S.
Victor, Mrs. Jessie K.
Vinissky, Bernard W.
Volicas, Dr. John N.
VonColditz, Dr. G. Thomsen-
vonGlahn, Mrs. August
Voorhees, Mrs. Condit
Voorhees, H. Belin
Voynow, Edward E.

Wager, William
Wagner, Fritz, Jr.
Wagner, Dr. G. W.
Walgreen, Mrs. Charles R.
Walker, James
Walker, Mrs. Paul
Walker, Samuel J.
Walker, William E.
Wallace, Robert Y.
Wallace, Walter F.
Waller, James B., Jr.
Wallerich, George W.
Wallovick, J. H.
Walsh, Miss Mary
Walther, Mrs. S. Arthur
Ward, Edwin J.
Ward, Mrs. N. C.
Ware, Mrs. Charles W.
Warfield, Edwin A.
Warner, Mrs. John Eliot
Warren, Allyn D.
Warren, J. Latham
Warren, Paul C.
Warren, Paul G.
Warren, Walter G.
Washburne, Clarke
Washburne, Hempstead, Jr.

Washington, Laurence W.
Wassell, Joseph
Waterman, Dr. A. H.
Watson, William Upton
Watts, Harry C.
Watzek, J. W., Jr.
Waud, E. P.
Wayman, Charles A. G.
Wean, Frank L.
Weaver, Charles A.
Webster, Arthur L.
Webster, Miss Helen R.
Webster, Henry A.
Wedelstaedt, H. A.
Weil, Mrs. Leon
Weil, Martin
Weiler, Rudolph
Weiner, Charles
Weinstein, Dr. M. L.
Weinzelbaum, Louis L.
Weis, Samuel W.
Weisbrod, Benjamin H.
Weiss, Mrs. Morton
Weissenbach, Mrs. Minna K.
Weisskopf, Maurice J.
Weisskopf, Dr. Max A.
Welles, Mrs. Donald P.
Welles, Mrs. Edward Kenneth
Wells, Arthur H.
Wells, Harry L.
Wells, John E.
Wells, Preston A.
Wells, Thomas E.
Wells, Mrs. Thomas E.
Wendell, Barrett, Jr.
Wendell, Miss Josephine A.
Wentworth, Mrs. Sylvia B.
Werner, Frank A.
West, J. Roy
West, Miss Mary Sylvia
West, Thomas H.
Westerfeld, Simon
Westrich, Miss T. C.
Wetten, Albert H.
Weymer, Earl M.
Whealan, Emmett P.
Wheeler, George A.
Wheeler, Leo W.
Wheeler, Leslie M.
Wheeler, Mrs. Robert C.
Whinery, Charles C.
White, Mrs. James C.
White, James E.
White, Joseph J.
White, Richard T.
White, Sanford B.
White, Selden Freeman
Whitehouse, Howard D.
Whiting, Mrs. Adele H.
Whiting, Lawrence H.
Widdicombe, Mrs. R. A.
Wieland, Charles J.
Wieland, Mrs. George C.
Wienhoeber, George V.
Wilder, Harold, Jr.
Wilder, Mrs. John E.
Wilder, Mrs. T. E.
Wilker, Mrs. Milton W.
Wilkey, Fred S.
Wilkins, George Lester
Wilkins, Miss Ruth
Wilkinson, Mrs. George L.
Wilkinson, John C.
Willey, Mrs. Charles B.
Williams, Dr. A. Wilberforce
Williams, Miss Anna P.
Williams, Harry Lee
Williams, J. M.
Williams, Kenneth
Williamson, George H.
Willis, Paul, Jr.
Willis, Thomas H.
Willner, Benton Jack, Jr.
Wills, H. E.
Wilms, Hermann P.
Wilson, Mrs. E. Crane
Wilson, Harry Bertram
Wilson, Mrs. John R.
Wilson, Miss Lillian M.
Wilson, Morris Karl
Wilson, Mrs. Robert Conover
Wilson, Mrs. Robert E.
Wilson, William
Winans, Frank F.
Windsor, H. H., Jr.
Winston, Mrs. Bertram M.
Winston, Hampden
Winston, James H.
Winter, Irving
Witkowsky, Leon
Wojtalewicz, Rev. Frances M.
Wolf, Mrs. Albert H.
Wolf, Walter B.
Wood, Mrs. Gertrude D.
Wood, Mrs. Harold F.
Wood, John H.
Wood, Kay, Jr.
Wood, Robert E.
Wood, William G.
Woodmansee, Fay
Woodruff, George
Woods, Weightstill
Worcester, Mrs. Charles H.
Work, Robert
Works, George A.
Worth, Miss Helen E.
Wright, H. C.
Wright, Warren
Wrigley, Mrs. Charles W.
Wunderle, H. O.
Wyeth, Harry B.

Yegge, C. Fred
Yerkes, Richard W.
Yondorf, John David
Yondorf, Milton S.
Yondorf, Milton S., Jr.
Yorkey, Mrs. Margaret
Young, E. Frank
Young, George W.
Young, Hugh E.

Zabel, Max W.
Zapel, Elmer
Zerk, Oscar U.
Zerler, Charles F.
Ziebarth, Charles A.
Zimmerman, Herbert P.
Zimmerman, Louis W.
Zinke, Otto A.
Zork, David

DECEASED, 1938

Armstrong, Arthur W.

Bailey, Mrs. Edward W.
Baird, Mrs. Clay
Becker, Mrs. A. G.
Blomgren, Mrs. Walter L.
Bode, William F.
Bridge, George S.
Brown, Charles A.
Bullard, Mrs. John A.
Cary, Dr. Frank
Cook, Mrs. Wallace L.
Cormack, Charles V.
Cornell, John E.
Dakin, Dr. Frank C.
Edmonds, Harry C.
Farrell, Rev. Thomas F.
Freeman, Walter W.
Grant, Alexander R.
Hammond, Mrs. Idea L.
Hartwell, Fred G.
Hopkins, John L.
Hoyt, Frederick T.
Hudson, William E.
Johnson, Albert M.
Jones, Lester M.
Judah, Noble Brandon
Kopf, William P.

DECEASED, 1938

Learned, Edwin J.
Llewellyn, Mrs. John T.
Ludlam, Miss Bertha S.
Magnus, August C.
Manson, David
Matz, Mrs. Rudolph
McCluer, William Bittinger
McKeever, Buell
Neely, Miss Carrie Blair
Noelle, Joseph B.
Norcross, Frederic F.
Omo, Don L.
Orr, Mrs. Eleanor N.
Ostrom, Charles S.
Otis, Raymond
Poor, Mrs. Fred A.
Quinlan, Dr. William W.
Randle, Guy D.
Rigney, William T.
Robbins, Percy A.
Sauter, Leonard J.
Schaffer, David N.
Tucker, S. A.
Uhlmann, Fred
Volk, Mrs. John H.
Wagner, John E.
Waller, H. P.
Webb, Mrs. Thomas J.
Wettling, Louis E.
Young, Mrs. Caryl B.

NON-RESIDENT ASSOCIATE MEMBERS

Those, residing fifty miles or more from the city of Chicago, who have contributed $50 to the Museum

Baum, Mrs. James
Colby, Carl
Day, Mrs. Winfield S.
Mitchell, W. A.
Niederhauser, Homer
Phillips, Montagu Austin
Stevens, Edmund W.

SUSTAINING MEMBERS

Those who contribute $25 annually to the Museum

Berkson, Mrs. Maurice
Bernstein, Fred
Carney, Thomas J.
Chinlund, Miss Ruth E.
Cox, William D.
Florsheim, Harold M.
Louis, Mrs. John J.
McInerney, John L.
Peel, Richard H.
Sawyer, Ainslie Y.
Slader, Thomas
Somers, Byron H.
Swigart, John D.

ANNUAL MEMBERS

Those who contribute $10 annually to the Museum

Abeles, Jerome G.
Adams, E. E.
Adams, Harvey M.
Adams, Hugh R.
Adams, Samuel
Addington, Mrs. James R.
Agger, Jens
Albert, Mrs. Lloyd G.
Alcorn, W. R.
Aldrich, Mrs. H. E.
Aleshire, Mrs. Oscar E.
Alessio, Frank
Alexander, Harry T.
Alford, Mrs. Laura T. C.
Allen, Dr. A. V.
Allen, Frank W.
Allen, John D.
Alrutz, Dr. Louis F.
Alschuler, Samuel
Altheimer, Ben J.
Alton, Robert Leslie
Amberg, Harold V.
Amberg, Miss Mary Agnes
Amos, J. A.
Anderson, Mrs. A. W.
Anderson, Arch W.
Anderson, J. A.
Anderson, Mrs. Lillian H.
Angus, Mrs. John
Anheiser, Hugo
Anthony, Joseph R.
Applegate, Mrs. Harry R.
Arcus, James S.
Armstrong, Horace White
Armstrong, Kenneth E.
Arndt, Albert
Arnold, George G.
Arnold, Mrs. Hugo F.
Arnold, Mrs. J. Bertley
Arthur, Miss Minnie J.
Ashcraft, Edwin M., III

Atwood, Fred G.
Austin, Edwin C.
Austin, M. B.
Auty, K. A.
Avildsen, Clarence
Ayer, Mrs. Walter

Bachmann, Mrs. Harrold A.
Bachmeyer, Dr. Arthur C.
Bade, Mrs. William A.
Baker, C. M.
Balderston, Mrs. Stephen V.
Balfanz, Henry W.
Ballard, Mrs. E. S.
Banes, W. C.
Bankard, E. Hoover, Jr.
Baril, W. A.
Barker, James M.
Barkhausen, Mrs. Henry G.
Barkhausen, L. H.
Barlow, Henry H.
Barnes, Harold O.
Barnes, Mrs. Harold Osborne
Barnes, William H.
Barrett, Mrs. A. M.
Barrett, Miss Adela
Bartholomay, William, Jr.
Bartholomew, Mrs. F. H.
Bartoli, Peter
Baskin, Salem N.
Beal, Henry S.
Bean, Edward H.
Bear, Mrs. Robert G.
Becker, Mrs. Herbert W.
Beddoes, Hubert
Beers-Jones, L.
Bell, George Irving
Bender, Miss Caroline
Bender, Mrs. Charles
Bengtson, J. Ludvig
Bennett, Edward H.
Bennett, Miss Evelyn T.
Bennett, N. J.
Bennett, Mrs. Reid M.
Bennington, Harold
Benson, Frank A.
Benson, Mrs. T. R.
Bentley, Richard
Berg, Sigard E.
Berger, E. M.
Berger, R. O.
Bergh, Ross F.
Berry, V. D.
Bertol, Miss Aurelia
Bestel, Oliver A.
Biddle, Robert C.
Biggio, Mrs. Louise T.
Biggs, Mrs. Joseph Henry
Bird, Herbert J.
Birdsall, Carl A.
Birdsall, Lewis I.
Black, J. Walker
Blackburn, Burr
Blackburn, John W.
Blair, Mrs. W. McCormick
Blaker, Edward T.
Bledsoe, Samuel T.
Block, Mrs. Joseph L.
Blomquist, Alfred
Bloomfield, Mrs. Leonard
Blosser, J. D.
Blumenthal, Barre
Blythe, Mrs. J. W.
Bobb, Dwight S.
Boeger, William F.
Bogoff, Henry
Bokman, Dr. A. F.
Bolton, John F.
Bond, William A.
Bond, William Scott
Bopp, Andrew R.
Borcherding, E. P.
Bothman, Dr. Louis
Botthof, Walter E.
Bowes, W. R.
Bowman, Jay
Bowman, Mrs. Jay
Boyd, E. B.
Boyd, Mrs. Henry W.
Boyer, Mrs. J. E.
Brachvogel, Mrs. Christiana
Bradford, David H.
Bradley, Herbert E.
Brant, Mrs. C. M.
Brashears, J. W.
Braudy, Mrs. Louis C.
Breen, James W.
Bremner, Dr. M. D. K.
Brewster, William E.
Briggs, Dr. Clement W. K.
Briney, Dr. William F.
Broome, John Spoor
Broome, Mrs. Thornhill
Brossard, J. J.
Brown, Miss Ella W.
Brown, Gerard S.
Brown, H. A.
Brown, Miss Martha A.
Brown, Dr. Ralph C.
Brown, Mrs. Warren W.
Brown, William A.
Browning, Miss Elizabeth
Browning, J. Roy
Brucker, Dr. Matthew W.
Brunkhorst, John Keenan
Buchanan, Mrs. Perry B.
Buchbinder, Dr. J. R.
Buchen, Walther
Buck, Mrs. A. F.
Buckley, Mrs. Warren
Budd, Mrs. Ralph
Buker, Edward
Bunnell, John A.
Bunton, Miss Helen M.
Burbott, E. W.
Burch, Mrs. W. E.
Burdick, Charles B.
Burkhardt, Mrs. Ralph N.
Burnet, Mrs. W. A.
Burnham, Hubert
Burridge, Mrs. Howard J.
Burrows, Miss Louisa L.
Busch, Francis X.
Butler, Comfort S.
Butler, Mrs. Gerald M.
Byfield, Ernest L.
Byrnes, William Jerome

Cable, Arthur G.
Caesar, O. E.
Caine, Leon J.
Callahan, Mrs. A. F.
Callan, T. J.
Calmeyn, Frank B.
Campbell, Argyle
Campbell, Donald A.
Campbell, George F.
Campbell, Mrs. John G.
Campe, Frank O.
Canavan, J. Newell
Cardelli, Mrs. Giovanni
Cardwell, Mrs. J. R.
Carl, Otto Frederick
Carlson, Mrs. Annetta C.
Carlson, John F.
Carpenter, Frank D.
Carpenter, John Alden
Carpenter, Mrs. Robert
Carr, Henry C.
Carry, Mrs. Edward F.
Carter, Mrs. C. B.
Carter, Mrs. R. B.
Cassady, Mrs. Thomas G.
Cassells, G. J.
Castenholz, W. B.
Castle, Sidney
Caswell, Mrs. A. B.
Cathcart, James A.
Cavanagh, Harry L.
Cawley, William J.
Cedarquist, B. E.
Cervenka, John A.
Chandler, Charles H.
Chandler, Dr. Fremont A.
Chandler, George M.
Chanock, T.
Chapin, Rufus F.

Chapman, Ralph
Chapman, Theodore S.
Chapman, William Gerard
Chase, Carroll G.
Chase, Derwood S.
Chase, Samuel T.
Chessman, L. W.
Childs, Mrs. George W.
Childs, Kent C.
Chrissinger, Horace B.
Christensen, E. C.
Christensen, Henry C.
Christiansen, Dr. Henry
Citron, William
Clark, A. B.
Clark, Mrs. Eugene
Clark, George C., Jr.
Clark, N. R.
Clark, Mrs. Ralph E.
Clark, Robert H.
Clarke, Broadus J.
Clarke, David R.
Clarke, Mrs. Philip R.
Clements, Mrs. Ira J.
Clements, J. A.
Clifford, Thomas B.
Clissold, Edward T.
Clizbe, Mrs. F. O.
Clow, Kent S.
Coe, Mrs. Schuyler M.
Coen, T. M.
Cohen, Archie H.
Cohen, Irving Leslie
Colby, Miss Agnes
Cole, Samuel
Coleman, Mrs. Adelbert E.
Coleman, Hamilton
Collins, Arthur W.
Collins, Charles W.
Collins, Mrs. Frank P.
Combs, Earle M., Jr.
Compton, Mrs. Arthur H.
Condon, Thomas J.
Conner, J. A.
Connolly, R. E.
Connors, Mrs. Thomas A.
Consoer, Arthur W.
Cook, Louis T.
Cook, Sidney A.
Cooke, Charles F.
Coombs, Dr. Arthur J.
Cooper, Charles H.
Cooper, Mrs. Clay C.
Cooper, R., Jr.
Coppel, Mrs. Charles H.
Corper, Erwin
Craddock, John F.
Cragg, Mrs. George L.
Craig, E. C.
Craigmile, Charles S.
Craigmile, Miss Esther A.
Cramer, Mrs. Ambrose
Craske, Dr. W. D.
Crawford, Adam W.
Croft, Miss Mildred H.
Cronkhite, A. C.
Cronwall, Edward C.
Crowell, Dr. Bowman Corning
Cummings, Mrs. Dexter
Cuneo, Frank
Cunningham, Secor
Curtis, D. C.
Cuscaden, Fred A.
Cushman, Dr. Beulah
Cuttle, Harold E.

Dallwig, P. G.
Dalzell, Harry G.
Dangel, W. H.
Daniel, Norman
Danielson, Reuben G.
Daspit, Walter
David, Sigmund W.
Davidson, David W.
Davies, William B.
Davies, Mrs. William J.
Davis, Charles C.
Davis, Mrs. Charles P.
Davis, Charles S.
Davis, Mrs. F. Ben
Davis, Miss Hilda G.
Davis, Paul H.
Davis, R. Edward
Davis, Ralph W.
Day, Mrs. Lewis J.
Deacon, Edward F.
Dean, Mrs. C. H.
Dean, William D.
Deane, Mrs. Ruthven
DeBarry, C. D.
DeCamp, Harry E.
Decker, Herbert
Decker, Hiram E.
Deffenbaugh, Walter I.
Defrees, Mrs. Joseph H.
Degener, August W.
Dehning, Mrs. C. H.
Deimel, Mrs. Jerome L.
Demaree, H. S.
Dempsey, William J.
Denison, John W.
Deniston, Mrs. Albert J., Jr.
Denson, John H.
DePencier, Mrs. Joseph R.
DePeyster, Frederic A.
Depue, Oscar B.
Deree, William S.
Dern, Dr. Henry J.
D'Esposito, Joshua
Dewey, Mrs. Charles S.
Diamond, Louis E.
Dick, Mrs. Edison
Dicken, Clinton O.
Dickerson, Earl B.
Dickinson, Mrs. Welch
Diem, Peter
Diggs, Dr. Arthur E.
Dillbahner, Frank
Dimmer, Miss Elizabeth G.
Dixon, Mrs. Wesley M.
Donnelley, Thorne
Donohue, Louis J.
Doolittle, Douglass
Dorney, Rev. Maurice A.
Doubson, Mrs. Willa Thurman
Douglas, Mrs. James H.
Douglass, Mrs. W. A.
Drake, L. J.
Drell, Mrs. J. B.
Dressel, Charles L.
Dreutzer, Carl
Drezmal, Max A.
Dreyfus, Maurice M.
Drielsma, I. J.
Dry, Meyer
Dulsky, Louis
Dunham, M. Keith
Dunlap, George G.

Easton, J. Mills
Eaton, Leland E.
Eckart, Mrs. Robert P.
Eckhouse, George H.
Eckhouse, Mrs. Herbert F.
Edell, Mrs. Fred B.
Edgar, Guy A.
Ehrmann, Dr. Fred J. E.
Eisenberg, David B.
Eitel, Emil
Eitel, Karl
Eldred, Mrs. Harriot W.
Eldridge, Charles B.
Elliott, Francke C.
Elliott, Frank Osborne
Elliott, William S.
Ellis, Alfred E.
Ellis, Charles S.
Ellis, Hubert C.
Elmendorf, Armin
Elmer, Dr. Raymond F.
Elston, Mrs. I. C., Jr.
Embree, Henry S.
Embree, J. W., Jr.
Epstein, Mrs. Albert K.
Erickson, Elmer
Erminger, Mrs. H. B., Jr.
Essley, E. Porter

Eulass, E. A.
Evans, Mrs. Arthur T.
Everett, Edward W.
Evers, John W., Jr.

Fabrice, Edward H.
Fairlie, Mrs. W. A.
Fairman, Miss Marian
Falls, Dr. F. H.
Fantus, Ernest L.
Farnsworth, Mrs. Ward
Farrar, Holden K.
Farwell, Albert D.
Feipel, Peter J.
Felsenthal, Herman
Feltman, Roland D.
Fenton, J. R.
Ferguson, Louis A., Jr.
Ferry, Mrs. Frank
Field, Mrs. J. A.
Field, Mrs. Wentworth G.
Fink, R. A.
Finkl, Frank X.
Fischer, Mrs. Louis E.
Fish, Mrs. Sigmund C.
Fisher, Stephen J.
Fitzgerald, Dr. J. E.
Fleischhauer, Herbert
Fletcher, R. P.
Flood, E. J.
Florsheim, Leonard S.
Flory, Owen O.
Floyd, Paul E.
Flynn, Maurice J.
Folsom, Mrs. William R.
Ford, Mrs. Edwin S.
Fordyce, Mrs. Rushton L.
Forester, Mrs. Anne
Forrest, Maulsby
Forrester, Mrs. W. W.
Fosburg, H. A.
Foster, William S.
Foucek, Charles G.
Fowler, Edgar C.
Fowler, Gordon F.
Fowler, Walter E.
Fox, Guy G.
Frank, A. Richard
Frazee, Seward C.
Freeman, Thomas B.
Freiler, Abraham J.
Fremont, Miss Ruby
French, George W.
French, Dr. Thomas M.
Freund, Erwin O.
Frick, Mrs. H. A.
Frieder, Edward
Fulton, Arthur W.
Fulton, D. B.

Gabel, Walter H.
Gabriel, Adam
Gale, Abram
Galloway, Dr. Charles E.
Galvin, J. E.
Gano, David R.
Ganz, Mrs. Rudolph
Gardiner, Mrs. John L.
Gates, Philip R.
Gatzert, Mrs. August
Geiling, Dr. E. M. K.
Gengevi, Ettore
Gensburg, Louis W.
Geraghty, Mrs. Thomas F.
Gerber, Max
Gibbs, William J.
Gibbs, Dr. William W.
Gilchrist, Miss Harriet F.
Giles, Miss A. H.
Gillett, W. N.
Gillick, J. T.
Gingrich, Arnold
Glade, George H., Jr.
Glader, Frank J.
Glennon, Mrs. Fred M.
Glynn, Mrs. John E.
Goble, Mrs. E. R.
Goddard, Mrs. Convers
Goldberg, Mrs. Sol H.
Goldman, Mrs. Louis
Goldsmith, Henry M.
Goldsmith, Mitchel
Goodell, P. W.
Goodkin, Alexander
Goodman, Benjamin H.
Grabiner, Harry M.
Grade, Joseph Y.
Graffis, Herbert
Granstrom, P. Martin
Grauer, Milton H.
Graves, Mrs. George E.
Gray, William A.
Graydon, Charles E.
Green, Walter H.
Greenebaum, Mrs. Esther
Greenhouse, Jacob
Greenlee, Mrs. Ralph S.
Greenlee, William B.
Grein, Joseph
Gressens, Otto
Grey, Newton F.
Gridley, Mrs. Martin M.
Griesel, Edward T.
Griesemer, Mrs. Itha
Griffith, Mrs. G. H.
Groebe, Louis G.
Grossfeld, Miss Rose
Grupe, Mrs. Sara Martin
Guilliams, John R.
Guinan, James J.
Gunnar, Mrs. H. P.
Guthrie, S. Ashley

Haffner, Mrs. Charles C., Jr.
Hagey, J. F.
Hajek, Henry F.
Hales, Mrs. G. W.
Hall, Arthur B.
Hall, Mrs. David W., Jr.
Hall, Henry C.
Hall, Louis W.
Hall, Ross C.
Hallett, L. F.
Hamilton, Mrs. Chester F.
Hamilton, Hugo A.
Hamilton, J. R.
Hammerman, Joseph M.
Hammill, Miss Edith K.
Hammond, C. Herrick
Hansen, Adolph H.
Hanson, Martin J.
Harbison, Robert B.
Hardenbrook, Mrs. Burt C.
Hardin, George D.
Harding, Mrs. Charles F.
Hardy, Francis H.
Harmon, Hubert P.
Harpel, Mrs. Charles J.
Harper, Philip S.
Harper, Robert B.
Harper, Samuel A.
Harrington, George Bates
Harrington, S. R.
Harris, Benjamin R.
Harris, Ewart
Harris, Frank F.
Harris, Mortimer B.
Harrison, Dr. Edwin M.
Harrison, William H.
Harrold, James P.
Harshaw, Myron T.
Hart, Mrs. G. H.
Hart, Mrs. H. G.
Hart, Mrs. Harry
Hart, Louis E.
Hart, Max A.
Hart, Robert H.
Hart, Mrs. Walter H.
Hartmann, Ernest F. L.
Harvey, Byron S.
Harvey, Mrs. Harold B.
Hasely, C. C.
Haskell, L. A.
Hattstaedt, Mrs. John J.
Hauser, J. C.
Hawkes, Joseph B.
Hawkins, Harold E.
Hawkins, Mrs. R. W.
Hawkinson, Dr. Oscar

Hawley, Mrs. Melvin M.
Hawthorne, Vaughn R.
Haywood, Mrs. William
Headley, Mrs. Ida M.
Healy, John J.
Healy, Vincent E.
Heavy, John C.
Hebel, Oscar
Heckel, Edmund P.
Hedly, Arthur H.
Heg, Ernest
Heifetz, Samuel
Helebrandt, Louis
Heller, Fred M.
Henderson, B. E.
Henke, Frank X.
Henkel, Milford F.
Henner, Hyman I.
Henning, Mrs. Helen E.
Henriksen, H. M.
Herendeen, Frederick
Hertzman, Irving L.
Herz, Alfred
Hess, Edward J.
Hess, Sol H.
Hibbard, Angus S.
Hibler, Mrs. Harriet E.
Hicks, Mrs. Ernest H.
High, Mrs. George H.
High, Shirley T.
Hill, Mrs. Cyrus G.
Hill, Miss Meda A.
Hillyer, John T.
Hilpert, Dr. Willis S.
Hilton, Henry H.
Hinckley, Mrs. Freeman
Hirsh, Morris Henry
Hixon, H. Rea
Hoadley, Mrs. Arthur G.
Hoag, Mrs. Junius C.
Hobbs, John W.
Hodge, Thomas P.
Hoff, C. W.
Hollingshead, Mrs. A. G.
Holt, McPherson
Holter, Charles C.
Honecker, Ralph H.
Hood, H. M.
Hooper, A. F.
Horton, Mrs. Douglas
Horton, Warren C.
Horween, Arnold
Horween, Isidore
Horwich, Alan H.
Hough, Frank G.
Howard, Charles Lowell
Howard, P. S.
Hoyt, Dr. D. C.
Hoyt, N. Landon, Jr.
Hoyt, William M., II
Hubachek, Frank Brookes
Huettmann, Fred
Huffman, Frank C.
Hughitt, Mrs. Marvin
Huguenor, Lloyd B.
Hungerford, Mrs. L. S.
Hurd, Harry B.
Huth, Mrs. C. F.
Hyman, Mrs. David A.
Hyndman, Mrs. A. H.

Igoe, Mrs. Michael L.
Illian, Arthur J. G.
Immerwahr, Max E.
Ireland, Mrs. Charles H.
Irish, Dr. Henry E.
Ivy, Dr. A. C.

Jackson, Mrs. Arthur S.
Jackson, G. McStay
Jackson, Mrs. Pleda H.
Jackson, W. H.
Jackson, William F.
Jacobs, E. G.
Jacobs, Nate
Jamieson, Norman R.
Janda, Frank J.
Jaques, Mrs. Bertha E.
Jarvis, William B.
Jeffers, Roy S.
Jeffreys, Mrs. Mary M.
Jeffries, Dr. Daniel W.
Jeffries, Robert M.
Jenkins, Newton
Jenner, Mrs. Austin
Jennings, Mrs. C. A.
Jennings, S. C.
Jensen, Mrs. Alfred
Jensen, Miss Esther
Jensen, H. J.
Jewett, George F.
Johns, Mrs. K. V. Janovsky
Johnson, B. W.
Johnson, Edmund G.
Johnson, George A.
Johnson, Joseph M.
Johnson, Miss Millie C.
Johnston, A. J.
Johnstone, Mrs. Bruce
Jones, Mrs. C. A.
Jones, Charles W.
Jones, D. C.
Jones, Howard B.
Jones, Oliver
Jones, Owen Barton
Joy, James A.
Judd, Mrs. Charles H.
Juhn, Miss Mary

Kaempfer, F. W., Jr.
Kahlke, Dr. Charles E.
Kahn, Paul J.
Kann, Max M.
Kannally, Michael V.
Kanter, Dr. Aaron E.
Kaplan, Benjamin G.
Karker, Mrs. M. H.
Karpen, Leo
Katz, Solomon
Kaufman, Mrs. J. Sylvan
Kaufmann, Dr. Gustav L.
Kaumeyer, Mrs. E. A.
Kay, Dr. Webster B.
Keck, William S.
Keeler, C. D.
Keene, William J.
Keim, Melville
Keller, Mrs. Rose H.
Kelley, L. Thomas
Kelley, Mrs. Phelps
Kellogg, James G.
Kellogg, John Payne
Kelly, Charles Scott
Kelly, Frank S.
Kelly, Miss Katherine Marjorie
Kemper, Miss Hilda M.
Kendall, H. R.
Kenly, Mrs. William K.
Kennedy, David E.
Kenyon, Mrs. Edward F.
Keplinger, W. A.
Keyser, Charles F.
Kharasch, Dr. M. S.
Killelea, Miss Marie
Kimball, T. Weller
King, Frank L.
King, H. R.
King, J. Andrews
King, Joseph M.
King, Willard L.
Kinne, Harry C.
Klein, Mrs. A. S.
Klein, Dr. David
Kleinschmidt, Edward
Kline, A.
Kloese, Henry
Klohr, Philip C.
Klotz, George C., Sr.
Knapp, Charles S.
Knode, Oliver M.
Knol, Nicholas
Knutson, Mrs. George H.
Koch, Carl
Kohn, Mrs. Frances J.
Koltz, George C., Sr.
Koopmann, Ernest F.
Koplin, Samuel M.
Korengold, J. A.
Kort, George
Korten, Miss Hattie C.
Kotas, Rudolph J.
Kraemer, Leo

Krafft, Walter A.
Kraft, John H.
Krafthefer, James M.
Kramer, A. E.
Krasberg, Rudolph
Krause, C. H.
Krausman, Arthur
Krawetz, Mrs. Johannes
Krebs, Charles E.
Kresl, Carl
Kress, William G.
Krier, Ambrose J.
Krol, Dr. Francis B.
Kruesi, F. E.
Krum, Morrow
Kuehn, Miss Katherine
Kuehn, Oswald L.
Kugel, Leonard J.
Kuhnen, Mrs. George H.
Kuhns, Mrs. H. B.
Kunze, Edward L.
Kurfess, W. F.
Kurth, W. H.
Kurtzon, George B.
Kussman, A. C.

Lachman, Harold
LaCroix, J. V.
Ladd, John W.
Laird, Robert S.
Lamb, George N.
Landon, Robert E.
Landreth, Mrs. John P.
Landsberg, Mrs. Edward
Lang, Frank A.
Lang, Isidor
Lange, A. G.
Langert, A. M.
Langford, Joseph P.
Langhorst, Dr. Henry F.
Lapham, Ralph L.
Laramore, Florian Eugene
Lasch, Charles F.
Lau, Mrs. John Arnold
Laud, Sam
Law, M. A.
Lawrence, Walter D.
Lazelle, L. L.
Lazerson, Abraham
Leahy, T. M.
Leavens, Theodore
Lee, Lewis W., Jr.
Lee, Mrs. W. George
Lehman, Lawrence B.
Lehman, O. W.
Leighty, Edgar R.
Leonard, Dr. Joseph M.
Leslie, John Woodworth
Letterman, A. L.
Levin, Louis
Levis, John M.
Levy, Mrs. Arthur K.
Lewin, Miss Estella
Lewis, Frank J.
Lewis, Mrs. Walker O.
L'Hommedieu, Arthur
Lichtenstein, Walter
Liebenthal, Mrs. John Henry
Lieboner, William S.
Lifvendahl, Dr. Richard A.
Lindeman, John H.
Lindley, Arthur F.
Lindsay, Mrs. Martin
Lingott, Richard H.
Linn, Mrs. James W.
Lintuman, Miss Jennie
Lipman, Abraham
Little, Charles G.
Little, F. C.
Llewellyn, Mrs. Kenneth
Llewellyn, Mrs. W. A.
Lobdell, Harry H.
Loeb, Arthur A.
Loewenherz, Emanuel
Loewenstein, Mrs. E.
Loewenstein, Emanuel
Loomis, Miss Marie
Lorentz, Mrs. R. E.
Love, Miss R. B.
Ludlow, Mrs. H. Durward
Lurie, Mrs. George S.
Lynch, Miss Mary E.
Lyon, C. E.
Lyon, Mrs. Jeneva A.
Lyon, Mrs. William H.

MacArthur, Fred V.
MacChesney, Miss Muriel
MacEachern, Dr. M. T.
Macfarland, Mrs. Henry J.
Macfarland, Lanning
MacKechnie, Dr. Hugh N.
Mackie, David Smith
MacMillan, William D.
Macomb, J. DeNavarre
Maddock, Thomas E.
Magerstadt, Madeline
Magie, William A.
Magill, John R.
Malkov, David S.
Manaster, Henry
Manheimer, Arthur E.
Manning, Guy E.
Mansfield, Alfred W.
Marks, Emanuel
Marling, Mrs. Franklin, Jr.
Marnane, James D.
Marquart, Arthur A.
Marquart, E. C.
Marsch, Mrs. John
Marston, Mrs. T. B.
Martin, Webb W.
Martin, Z. E.
Marvin, W. Ross
Mason, Dr. Ira M.
Mason, Lewis F.
Mason, Miss Ruth G.
Massen, John A.
Massey, Walter I.
Mattes, Harold C.
Matthews, Francis E.
Matthews, J. H.
Maurer, W. Edward
Mawicke, Henry J.
May, Mrs. George T., Jr.
May, Sol
Mayer, Arthur H.
Mayer, Edwin W. C.
Mayer, Frederick
Mayer, Fritz
Mayer, Herman J., Jr.
Mayer, Oscar G.
Mayer, Richard
Mayer, Mrs. Walter H.
Maynard, Edwin T.
McAdams, Frank J., Jr.
McAllister, M. Hall
McAloon, Owen J.
McArthur, Mrs. S. W.
McCarthy, Mrs. Earl R.
McClellan, K. F.
McClure, Donald F.
McCollum, Mrs. W. E.
McConnell, Mrs. A. Howard
McCormick, Alister H.
McCormick, Miss Elizabeth D.
McCoy, Charles S.
McCreight, Marion Everett
McCurdy, John W.
McDonald, E. F., Jr.
McDonald, W. H.
McDonnell, Mrs. E. N.
McDougal, Mrs. Robert, Jr.
McDowell, Miss Ada
McDowell, Malcolm
McFadden, Everett R.
McGowen, Thomas N.
McGrain, Preston
McGreer, Mrs. John T.
McGregor, James P.
McGrew, Mrs. O. V.
McGuire, Simms D.
McKay, Miss Mabel

McKenna, Dr. Charles H.
McKibbin, Mrs. George B.
McKinstry, W. B.
McKisson, Robert W.
McLaughlin, Mrs. George D.
McLaughlin, Dr. James H.
McLaughlin, Mrs. Jesse L.
McLaughlin, Dr. John W.
McLean, Miss Sarah
McManus, James F.
McMurray, S. A.
McNall, Quinlan J.
McNally, Mrs. William D.
McNamara, Robert C.
McNamee, Peter F.
McPherson, Donald F.
McSurely, Mrs. William H.
Mechem, John C.
Medema, Peter J.
Meek, C. P.
Meek, Miss Margaret E.
Meeker, Arthur
Mehlhope, Clarence E.
Meier, Mrs. Edward
Meltzer, H. H.
Melville, Hugh M.
Merchant, Miss Grace M.
Metz, C. A.
Meyer, H. B.
Meyerhoff, A. E.
Michaels, Joseph
Michel, Dr. William A.
Milchrist, Frank T.
Millard, Mrs. E. L.
Miller, Charles J.
Miller, William
Mills, Mrs. James Leonard
Milne, John H.
Mitchell, Mrs. George R.
Molay, Marshal D., M.D.
Molter, Harold
Montgomery, Mrs. Frederick D.
Moore, Mrs. Agnes C.
Moore, Dr. Beveridge H.
Moore, E. E.
Moore, Mrs. J. W.
Moore, Nathan G.
Moore, William F.
Morgan, Clarence
Mork, P. R.
Morris, Ira Nelson
Morris, Thomas J.
Morrow, John Jr.
Morton, Dr. Edward C.
Moser, Paul
Mountcastle, Mrs. M. E.
Mowrer, Mrs. Paul Scott
Mowry, Robert D.
Mueller, Dr. E. W.
Mulcahy, Mrs. Michael F.
Mulhern, Edward F.
Muller, Allan
Murfey, E. T. R.
Murphy, E. T.
Murphy, Henry C.
Murphy, John C.
Murphy, J. P.
Murray, J. C.
Muter, Leslie F.

Nast, Mrs. Samuel
Nath, Bernard
Nau, Otto F.
Needham, Mrs. Maurice H.
Neff, Mrs. E. Eugene
Nelson, Byron
Nelson, Charles M.
Nelson, Hoogner
Nelson, Walter H.
Nelson, William H.
Nessler, Robert W.
Nevins, John C.
Newman, Charles H.
Newman, Mrs. H. H.
Newman, Mrs. Jacob
Newman, Montrose
Nickerson, J. F.
Nitka, Jesse
Noble, Guy L.
Noee, Miss Grace Georgette
Nolte, Charles B.
Norman, Dan
Norris, Eben H.
North, Mrs. F. S.
Novy, Dr. B. Newton
Nutting, C. G.
Nyquist, Carl

Oberman, Mrs. Abraham M.
Obermeyer, Charles B.
O'Brien, M. J.
O'Brien, William L.
O'Bryan, S. J.
Ochsner, Dr. Edward H.
Oldberg, Dr. Eric
Oleson, John P.
Olin, Edward L.
Olin, Dr. Harry D.
Olmstead, Ralph W.
Olsen, Miss Agnes J.
Olsen, Andrew P.
Olson, John
Olson, Rudolph J.
O'Neill, Dr. Eugene J.
Oppenheimer, Seymour
Ormsby, Mrs. Frank E.
Orr, Mrs. Fred B.
Osborne, Raymond
O'Shaughnessy, John P.
Ossendorff, Dr. K. W.
O'Toole, Mrs. Bartholomew
O'Toole, Dennis J.
Owen, C. N.

Palmer, Mrs. James L.
Palmer, Robert F.
Panosh, Roy W.
Parker, George S.
Pashkow, A. D.
Passell, Charles A.
Patch, Mrs. G. M.
Pauley, Clarence O.
Paulsen, Arthur N.
Paulson, Miss Christine
Paulus, Mrs. M. G.
Paver, Paul W.
Pearsall, R. E.
Peirce, Mrs. Clarence A.
Pencik, Miles F.
Pentecost, Lewis J.
Penticoff, M. C.
Perry, Arthur C.
Peterson, Dr. A. B.
Peterson, C. J.
Petrie, Dr. Scott Turner
Pettibone, Mrs. Holman D.
Pfaelzer, Mrs. Monroe
Pfister, Mrs. C. Eugene
Pflager, Charles W.
Phelps, Erastus R.
Phillips, Howard C.
Pickell, J. Ralph
Pilling, Neville
Pirie, Mrs. Gordon L.
Pitt, A. A.
Place, F. E.
Plamondon, Alfred D.
Plate, Ludwig
Plattenburg, S. R.
Plummer, Comer
Plummer, Daniel C., Jr.
Pohn, Jacob S.
Pollard, Charles W.
Pond, George F.
Poole, Mrs. James E.
Poore, William E.
Potter, Mrs. T. A.
Potts, Mrs. W. G.
Poulter, Mrs. Thomas Charles
Preetorius, Irwin W.
Preus, Mrs. J. A. O.
Prindle, James H.
Pritchard, N. H.
Propp, M. H.
Pruitt, Raymond S.
Pullman, Frederic A.

Purrucker, Miss Louise M.
Putnam, Rufus W.
Puttkammer, Mrs. Ernst

Quarrie, William F.
Quellmalz, Frederick
Quisenberry, T. E.

Raeth, J. P.
Railton, John R.
Randall, Clarence B.
Ranney, Mrs. George A.
Rasmussen, Robert P.
Rawlings, Mrs. I. D.
Ray, Bert
Raymond, Mrs. Clifford S.
Rayner, Lawrence
Rea, Miss Edith
Read, Mrs. J. J.
Reavis, William C.
Redmond, Hugh
Reed, Mrs. Frank C.
Reed, Rufus M.
Reed, Walter S.
Regensburg, James
Rehm, J. Albert
Rein, Lester E.
Reiss, William
ReQua, Mrs. Charles H.
Reuter, Mrs. Gustave A.
Reutlinger, Harry F.
Reuss, Mrs. Henry H.
Reynolds, Mrs. G. William
Reynolds, Joseph Callow
Rice, C. Leslie
Rice, Joseph J.
Rice, Mrs. W. W.
Rich, Harry
Richards, James Donald
Richards, Oron E.
Richardson, Henry R.
Richardson, Dr. Maurice L.
Richert, John C.
Richter, Arthur
Riel, George A.
Riley, John H.
Ripley, Mrs. Bradford W.
Ritchie, Mrs. John
Ritchie, R. H.
Ritter, Emil W.
Roadifer, W. H.
Robbins, Charles Burton
Robbins, Dr. James M.
Robbins, Laurence B.
Robinson, Miss Nellie
Robinson, Reginald Victor
Robson, Mrs. Oscar
Rockhold, Mrs. Charles W.
Rockola, David
Rockwell, Theodore G.
Roden, Carl B.
Roeth, A. C.
Rogers, Edward S.
Rollins, Athol E.
Rolnick, Dr. Harry C.
Roman, B. F.
Romaskiewicz, John
Rosenberg, Mrs. Bernhard
Rosenfeld, M. J.
Rosenfels, Hugo H.
Rosenfels, Mrs. Irwin S.
Rosenthal, Jerome B.
Rosenthal, M. A.
Rosenthal, Nathan H.
Rosenthal, Samuel H.
Rosner, Max
Ross, Mrs. F. A.
Ross, Mrs. Sophie S.
Ross, William J.
Ross-Lewin, Miss Elizabeth
Roth, Arthur J.
Rothstein, Mrs. Dave
Rountree, Lingard T.
Rowland, Hiram A.
Rowland, James E.
Rowley, Clifford A.
Rowley, William A.
Roy, Mrs. Ervin L.
Royal, Mrs. Joseph S.
Rubens, Miss Doris
Rubloff, Arthur
Ruby, Samuel D.
Rudin, John
Ryan, C. D.
Ryan, Mrs. Edward J.
Ryan, Miss Helen Valerie
Ryan, Mrs. Joseph D.
Rynder, Ross D.

Sachse, William R.
Salmonsen, Miss Ella M.
Sanborn, Mrs. V. C.
Sandberg, Harry S.
Sang, Philip D.
Saslow, David
Sawyer, Dr. C. F.
Sawyer, W. M.
Sayers, Mrs. A. J.
Sayre, Dr. Loren D.
Scallan, John William
Schaffner, Arthur B.
Schaus, Carl J.
Scheel, Fred H.
Scherer, Andrew
Schermerhorn, Richard A.
Schiltz, M. A.
Schlachet, Herman
Schlichting, Justus L.
Schmidt, F. W.
Schmidt, Theodore
Schmitt, Mrs. George J.
Schmus, Elmer E.
Schnadig, E. M.
Schneider, Benjamin B.
Schobinger, Mrs. Eugene
Schofield, Mrs. Flora
Schu, Jacob
Schueren, Arnold C.
Schulte, Dr. Edward V.
Schulz, Miss Myrtle
Schulz, Mrs. Otto
Schulze, John E.
Schulze, Paul
Schupp, Robert W.
Schwab, Dr. Leslie W.
Schwab, Martin C.
Schwarting, Clarence J.
Schwartz, Dr. Otto
Schwede, Charles W.
Schweitzer, E. O.
Scofield, Clarence P.
Scott, Frederick H.
Scott, George A. H.
Scott, George E.
Scott, George H.
Scott, Walter A.
Scott, Dr. Walter Dill
Scudder, Mrs. Lawrence W.
Scudder, W. M.
Secord, Burton F.
Seehausen, Gilbert B.
Selig, Lester N.
Selz, Emanuel
Senear, Dr. F. E.
Seubold, Dr. F. H.
Sexton, Mrs. Thomas G.
Seymour, Mrs. Flora Warren
Shaffer, Mrs. Norman P.
Shapiro, Isaac
Shaw, John I.
Shaw, Mrs. Walter A.
Sheahan, Miss Marie
Sheridan, L. J.
Sherman, H. C.
Sherman, Mrs. W. W.
Sherwin, Mrs. F. B.
Shippey, Mrs. Charles W.
Sholty, Lester J.
Shrader, Frank K.
Shultz, Earle
Shultz, Miss Edith
Shurtleff, Miss Lucille
Sidney, John A.
Siebel, Fred P.
Sieck, Herbert
Sievers, William H.

Sillani, Mrs. Mabel W.
Simmons, Mrs. Charles R.
Simonson, Roger A.
Simpson, Mrs. Anita
Simpson, John M.
Sizer, William A.
Sjostrom, Otto A.
Skeel, Fred F.
Skog, Mrs. Ludvig
Slade, John C.
Sloan, William F.
Smart, Alfred
Smith, Charles Herbert
Smith, Glen E.
Smith, Hawley Lester
Smith, Dr. Milton L.
Smith, Paul C.
Smith, Reynold S.
Smithwick, J. G.
Sokolec, Maurice
Sokoll, M. M.
Sollitt, George
Somerville, Mrs. Helen
Sparrow, Mrs. W. W. K.
Speed, Dr. Kellogg
Sperling, Mrs. Grace Dickinson
Spiegel, Modie J.
Sprague, Albert A., Jr.
Staehle, Jack C.
Stark, Rev. Dudley S.
Steece, F. B.
Steele, Mrs. Charles D.
Steffensen, Sigurd
Stein, Lawrence M.
Steinfeldt, Dr. C. R.
Steins, Mrs. Halsey
Steinson, Henry G.
Steinwedell, William
Stern, Jacob S.
Stevens, Francis O.
Stewart, Miss Alma May
Stewart, George J.
Stewart, George R.
Stewart, William
Stier, Willard J.
Stifler, Mrs. J. M.
Stiles, J. F., Jr.
Stilwell, Abner J.
Stone, Mrs. John Sheppard
Storkan, Mrs. James
Stout, Frederick E.
Stowe, Merrill C.
Stransky, Franklin J.
Straus, Eli M.
Straus, Henry H.
Strauss, Marshall E.
Straw, Mrs. H. Foster
Strawbridge, C. H.
Strigl, F. C.
Strubel, Henry
Stumes, Charles B.
Sturla, Harry L.
Sturtevant, C. D.
Sturtevant, Roy E.
Sudler, Carroll H., Jr.
Sullivan, Grey
Sundell, Ernest W.
Sundlof, F. W.
Swanson, Frank E.
Swift, T. Philip
Symmes, William H.
Symon, Stow E.

Talbot, Mrs. Eugene S., Jr.
Taradash, Lawrence
Tatge, Paul W.
Taylor, Mrs. Samuel G.
Teller, George L.
Tevander, Mrs. Olaf N.
Thiebeault, C. J.
Thomas, Mrs. Henry Bascom
Thompson, Ernest H.
Thornton, Everett A.
Thornton, Randolph
Thurber, Dr. Austin H.
Todd, A.
Todd, Miss Ruth G.
Tonk, Percy A.
Topping, John R.
Towne, Claude
Towner, Frank H.
Townsley, Lloyd Roger
Tracy, Howard Van S.
Tracy, S. W.
Trask, Arthur C.
Traver, George W.
Treat, Floyd C.
Trees, Mrs. Merle J.
Tremain, Miss Eloise R.
Trier, Robert
Trude, Daniel P.
Truman, Percival H.
Trumbull, Miss Florence
Turck, J. A. V.
Tyler, Alfred C.

Ullmann, Mrs. Albert I.
Urban, Andrew
Utley, George B.

Vail, Mrs. Arthur H.
VanHagen, Mrs. George E.
VanKirk, George M.
VanVlissingen, Mrs. Etta D.
Varty, Leo G.
Vilas, Mrs. Lawrence H.
Vivian, George
Vogl, Otto
vonHelmolt, Carl W.
Vose, Mrs. Frederic P.

Wachowski, Casimir R.
Wacker, Frederick G.
Wagner, Richard
Waite, Roy E.
Walcher, A.
Waldeck, Herman
Walker, Edgar H.
Walker, Lee
Walker, Stephen P.
Walker, Wendell
Wallach, Mrs. H. L.
Wallgren, Eric M.
Walpole, S. J.
Walton, Lyman A.
Ware, Mrs. Charles
Warner, Mason
Warren, L. Parsons
Warren, William G.
Wasson, Theron
Watkins, Frank A.
Watkins, Frederick A.
Watson, Vernon S.
Weast, Mrs. E. W.
Weber, William F.
Weber, W. S.
Webster, Edgar C.
Webster, James
Webster, Dr. James R.
Webster, N. C.
Weeks, Mrs. Marcy T.
Weidenhoff, Joseph
Weil, Edward S.
Weil, Mrs. Joseph M.
Weil, Mrs. Victor
Weiner, Charles
Weiner, Samuel
Weintroub, Mrs. Benjamin
Weirick, Miss Elizabeth S.
Welch, L. C.
Wells, Mrs. H. Gideon
Wentworth, John
Wentz, Peter Leland
Werelius, Mrs. Axel
Wescott, Dr. Virgil
Westbrook, Ira E.
Wetmore, Mrs. Frank O.
Whedon, Miss Frances E.
Wheeler, Mrs. Seymour
Whipple, Roy A.
Whipple, Miss Velma D.
White, Mrs. F. Edson
White, Linn
White, W. J.
Whitwell, J. E.
Wickland, Algot A.
Wickman, C. E.
Wilder, Emory H.
Wilds, John L.

Wiley, Edward N.
Wilhelm, Frank Edward
Willard, Nelson W.
Wille, Andrew
Willens, Joseph R.
Willett, Howard L.
Williams, Charles Sneed
Williams, Clyde O.
Williams, Miss Florence White
Williams, Lawrence
Willis, P. P.
Wilson, Arlen J.
Wilson, E. L.
Wilson, Percival C.
Winston, Mrs. Farwell
Winterbotham, John R., Jr.
Witkowsky, James
Wood, Milton G.
Woodyatt, Dr. Rollin Turner
Woolard, Francis C.
Worthy, Mrs. Sidney W.
Wray, Edward
Wright, Miss Bertha
Wrisley, George A.
Wulbert, Morris
Wyle, Mrs. E. A.
Wyzanski, Henry N.

Yates, Raymond
Yavitz, Philip M.
Yonce, Mrs. Stanley L.
Young, B. Botsford
Young, James W.
Youngberg, Arthur C.

Zadek, Milton
Zahringer, Eugene V.
Zangerle, A. Arthur
Zeiss, Carl H.
Zenos, Rev. Andrew C.
Zglenicki, Leon
Zimmermann, Mrs. P. T.
Zipprich, Carl J.
Zolla, Abner M.
Zonsius, Lawrence W.

DECEASED, 1938

Barrett, M. J. P.
Baumann, Mrs. F. O.
Berlizheimer, Miss Lily A.
Bournique, Alvar L.
Buck, Nelson Earl
Buethe, W. C.

Crosby, Mrs. Frederick W.

Ettelson, Samuel A.

Graf, Emil
Harmon, J. W.
Harper, James H.
Hathaway, Leonard W.

Kramer, Henry

Millsaps, J. H.
Mulford, Frank B.

Peterson, Leonard
Pietsch, Walter G.

Schwill, Julius
Shepard, Guy C.
Spry, George
Stanbury, Dr. C. E.
Street, C. R.

Tankersley, J. N.
Taylor, Harry G.
Throop, George Enos

Warren, A. G.
Wedeles, Sigmund
West, Mrs. Frederick T.
Westerling, Olaf
Whipple, A. J.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 084204947